THE NYAYA ON MEANING

A Commentary on Pandit Visvabandhu

J. L. Shaw

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Society for Philosophy & Culture
Wellington
2011

Published by
Society for Philosophy & Culture
Wellington, NZ
2011
books@philosophyandculture.org

First Published
Punthi Pustak: Kolkata
2003

ISBN: 978-0-473-19326-3

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To my preceptor M. M. Pandit Visvabandhu

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Preface

The concept of meaning is a widely discussed topic in Indian philosophy. Different systems of Indian philosophy have explained this topic from different points of view. It has also been discussed at different levels such as etymological, conventional (or surface structure), deep structure (or karaka), causal, metaphorical, and suggestive. Although the Nyaya philosophers have accepted metaphorical meanings of words but not of sentences, this book deals with the meanings of words or sentences at the conventional or surface structure level. Since the Nyaya philosophers deal with the meanings of different types of words such as nouns, verbs, and suffixes, they follow the analytical or the atomistic tradition (khandapaksa) of Indian philosophy. But some of the grammarians or the philosophers of language such as Bhartrhari have taken an holistic approach to meaning. Hence they emphasise sentence-meanings rather than word-meanings.

The Nyaya on Meaning primarily deals with the meanings of different types of words from the standpoint of the Navya-Nyaya tradition of Indian philosophy. It contains not only a comprehensive discussion on common nouns or terms for natural kinds such as "cow" but also a comprehensive discussion on demonstrative pronouns, personal pronouns and interrogative pronouns. Several theories of demonstrative pronouns have been examined from the Nyaya point of view. Gadadhara, a Navya-Nyaya philosopher, emphasises the homonymous character of a demonstrative pronoun and the method of learning its referent. However, he has not equated the meaning of a demonstrative pronoun with the rule for its use. Contemporary Western philosophers, such as Peirce, Russell, Reichenbach, Strawson and Kaplan have also discussed the nature of a demonstrative, but some of them have equated the meaning of a demonstrative with the rule for its use. Since the Nyaya examines in detail the view that a demonstrative is a homonymous term, it will add a new dimension to contemporary philosophy of language.

The Nyaya discussion of the quantifier "all" will be relevant not only to philosophy of language but also to symbolic logic, as it draws the distinction between "All S is P" and "If x is S, then x is P", among many others. Again, the Nyaya concept of a sentence and its meaning will also be useful for solving some of the problems raised by contemporary linguists, such as Chomsky, Katz, Fodor, Fillmore and Jackendoff. Hence this book is useful not only for understanding the analytical tradition of Indian philosophy but also for solving some of the problems of contemporary Western philosophy.

This book contains a substantial portion of my article "The Nyaya on the Meaning of Some Words", which appeared in the Journal of Indian Philosophy, vol. 20, 1992. I am grateful to the Kluwer Academic Publishers, Dordrect, Holland, for giving me permission to reprint parts of this article. I also extend my gratitude to Mr. P. K. Bhattacharya, the proprietor of Punthi Pustak, and to those who helped me in various ways in getting this book published.

If there is any merit in this book, it is to be attributed to my preceptor Pandit Visvabandhu Tarkatirtha, with whom I studied for more than a decade. For all the shortcomings I am to be held responsible.

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Word and Referent

Certain meaningful expressions[1] arranged by the relation of successor or predecessor form a sentence. A set of words which forms a sentence gives rise to (or generates) the understanding of the meaning of a sentence, which is about the relation of the referent of a word to the referent of another word, by presenting the referent of each word or by generating the memory-cognition of the referent of each word in the sentence.[2] Since the relation of the referent of a word to the referent of another word is the content of an understanding of the meaning of a sentence, this type of cognition (or understanding) is also called the "understanding of the relation" (anvayabodha).[3] Each of the words of a sentence presents its own referent. For example, the word "cow" generates a memory-cognition of an animal with a dewlap, but it does not generate a cognition of a horse, buffalo, etc. Similarly, the word "pot" presents or gives rise to a memory-cognition of a type of utensil, but not of anything else. In this way the words, by generating a cognition of their referents, come to generate the understanding of the meaning of a sentence.

The rule for presentation or memory-cognition can be stated in the following way: The cognition of one of the relata generates the memory-cognition of the other. In other words, if we know the relation between two entities, then the cognition of one yields a memory-cognition of the other. If a word could generate a memory-cognition of a referent with which it is not connected, then any word would generate a memory-cognition of any referent and thereby the understanding of the meaning of a sentence: but this does not happen. Hence a word which is related to a referent by the rule gives rise to a memory-cognition of its referent. This type of relation between a word and its referent, which is conducive to the understanding of the meaning of a sentence, is called "vrtti". There are two types of vrtti, viz., vacyavacakabhava (primary relation between a word and its referent) and laksana (secondary relation between a word and its referent).

A word is called "vacaka" and its referent is called "vacya". Hence[4] the relation of the referent to a word, which is to be called "vacakatva", resides in a word, and the relation of a word to its referent, which is to be called "vacyatva", resides in the referent. The word "cow" refers to a type of animal with dewlap. Thus the cognition of the vacakata[5] relation in a word, which presents the referent as a content of our cognition, is a causal condition for the understanding of the meaning of a sentence. This type of cognition of relation between a word and its referent is called "the cognition of the relation between a word and its referent such that the word is the qualificand of this relation" (padavisesyaka vrttijnana).[6] Again the relation of a word to its referent called "vacyata" is cognised in the referent.[7] This type of cognition between a word and its referent is called "the cognition of the relation between a word and its referent such that the referent is the qualificand of its relation" (arthavisesyaka vrttijnana). For the convenience of our discussion we shall take the relation between a word and its referent as the relation of a word to its referent.

An Individual, the Form of an Individual and the Class-Essence as Referents of a Word

In order to determine the referent of a word, its previous use is to be considered as a means of knowledge. If a word is used to refer to something for a long time, then that thing is to be considered as its referent. For example, words such as "cow" or "pot" have been used to refer to a cow or a pot from time immemorial. Hence a cow or a pot is the referent of the word "cow" or "pot". When we hear the word "cow", what comes to our mind is an individual cow, the form of a cow and the class-character cowness. Hence the word "cow" is used to refer to an individual cow, the form of it, and the class-character of a cow. For this reason the Nyaya philosophers have considered an individual, its form, and the class-character as referents of a word. Gautama in his Nyaya aphorism has said: "The referent of a word is an individual, its form and its class-essence" (jatyakrtivyaktayah padarthah). Although an individual, its form, and its class-character are referents of a word, they are not referents as independent of one another. The form of an individual and its class-character are revealed as qualifiers of an individual by a word. Hence the form of an individual and the class-character are referents as qualifiers of an individual. In other words, an individual qualified by the form and the class-character is the referent of a word. Among these three, viz., an individual, its form and its class-character, an individual is called "the referent of a word" (padavacya), and the class-character is called "the limitor of the property of being a referent of a word" (padavacyatavacchedaka). When we hear a word, that which appears in the memory-cognition as a thing qualified by a property is the referent, and the property is the limitor of the property of being a referent. For example, when we hear the word "cow", we remember an individual cow qualified by the class-character cowness. Hence an individual cow is the referent, and the class-character cowness is the limitor of the property of being a referent. Now an objection may be raised. As we remember an individual cow qualified by cowness when we hear the word "cow", so we remember an individual cow qualified by its form when we hear the word "cow". If cowness is considered as the limitor of the property of being the referent, why should we not consider the form a cow as the limitor of the property of being the referent? In reply the following can be said: A limitor has been admitted in order to determine each of the referents of a word, and to distinguish the referents from things which are other than the referents of the word. If there is more than one property of this type, then the property which is justified on the grounds of parsimony is to be considered as the limitor of the property of being the referent of a word. In the above example, the form of a cow is a more complex property than the class-character cowness; because the form of any one cow is different from that of another. Hence it is much simpler to accept one class-character "cowness" than to accept many forms of different cows as the limitor of the property of being the referent of the word "cow". Moreover, the required property which is to be present in a referent must be something which is present in each of the referents of a word, and which is absent from all other things which are not referents of a word. But the relation of one part to another

which is called “the form” of an object resides in the parts of an object, not in the object which is the referent. For example, the form of a cow is the way its parts are related to one another. Since the form of a cow resides in its parts, not in an individual cow, it is not something which is common to all the referents of the word “cow”. Hence it cannot be considered as the limitor of the property of being the referent.

In the above discussion it is said that a class-character is the limitor of the property of being the referent. Here the word “class-character” (jati) is used in the sense of a property which is common to the members of a class; for there are many words which do not signify any class- character (jati).[8] For example, the word “dumb” signifies a person who has an absence of speech, and the word “deaf” signifies a person who has an absence of hearing. In such case, the limitor of the property of being the referent of the word “dumb” is the absence of speech, and the limitor of the property of being the referent of the word “deaf” is the absence of hearing; neither of them is a class-character (jati).

The above-mentioned view that the meaning of a word is to be explained in terms of an individual, its form, and its class-character is not applicable to all words, because there are many words which do not signify any class- character. For example, a child who has received a wooden horse as a gift has given the name “Dittha” to it. Here the word “Dittha” would signify the individual wooden horse and its form. In other words, the word “Dittha” refers to the individual object qualified by its form. Here the individual is the referent and the form of the individual is the limitor of the property of being the referent. Since there is only one object as the referent, it does not have any common property. Hence the word “Dittha” does not signify anything other than the individual and its form. Again there are many words which do not signify even the form of an object; for example, the words “soul”, “mind” (manas) etc. Since a soul, a mind, etc., do not have any parts, they do not have any forms. But we have to admit a property which is common to all souls, and which is absent from all other objects. This common property soulhood is a class-character. The referent of the word “soul” is a soul qualified by the class-character soulhood. Hence a soul is the referent of the word “soul” and the class-character soulhood is the limitor of the property of being the referent. Thus there is no scope for a form of an object in cases such “soul”, “mind”, etc. In such cases a word signifies an individual and its class-character.

The Referent of the Word “Sky” (Akasa)

From[9] the above discussion we have learnt that in some cases the meaning of a word is to be explained in terms of an individual, its form, and the class-character. For example, in cases like “cow”, “pot”, etc., an individual is the referent, the class-character is the limitor of the property of being the referent, and the form of an individual becomes a qualifier of an individual but not the limitor of the property of being the referent. Some other words, such as the word “Dittha” signify the individual and its form only. In such cases the individual is the referent, and the form of the individual assumes the status of the limitor of the property of being the referent. In some other cases the meaning of a word is to be explained in terms of an individual and its class-character. In cases such as “soul”, “mind”, etc., the class-character is the limitor of the property of being the referent and an individual is the referent. The old Nyaya philosophers have admitted some words which signify only individuals, but not their class-character or forms. Hence they (i.e. class-characters or forms) cannot be treated as limitors of the property of being the referents.

An example is the word “sky”. They have claimed that a property cannot be the limitor of the property of being the referent of the word “sky”. Hence the word “sky” signifies an object only; it has no limitor of the property of being the referent. Now an objection may be raised. Since skyness or the property of being the locus of sound is present in the sky, it is to be considered as the limitor of the property of being the referent of the word “sky”. As an answer to this objection the old Nyaya philosophers have claimed that if we consider the property of being the locus of sound as the limitor of the property of being the referent, then there cannot be any understanding of the meaning of the sentence “Sky is the locus of sound”. For, according to the grammarians (or lexicographers), the relation of the referent of one name to that of another (name or definite description) is one of identity, but in the case of synonymous expressions there cannot be any understanding of the meaning of a sentence. For example, in the case of a sentence such as “A pot is a pot” they do not admit any understanding of its meaning. If the limitor of the property of being the subject (uddesyatavacchedaka)[10] is the same as the limitor of the property of being the predicate (vidheyatavacchedaka),[11] they do not understand the meaning of a sentence by the relation of non-difference between the subject and the predicate. The thing qualified by a property in which a relation is asserted is the subject, and the property is the limitor of the property of being the subject. The thing qualified by a property with which a relation is asserted is the predicate, and the property is the limitor of the property of being the predicate. If this type of limitor of the property of being the subject and the limitor of the property of being the predicate are the same, then there is no understanding of the meaning because the relation between them is one of non-difference. Where the referents of two words are not different, but their properties (i.e. the modes of reference) are different, there the non-difference relation between the referents of those two words is to be admitted in order to show the sameness between the two qualified things. If we admit the understanding of the meaning of the sentence “A

pot is a pot” the referent of the first occurrence of the word “a pot” is the subject and potness is the limitor of the property of being the subject; and the referent of the second occurrence of “a pot” is the predicate and potness is the limitor of the property of being the predicate. Since in both the cases potness is the limitor of the property of being the subject and the limitor of the property of being the predicate, there is no understanding of the relation of the referent of the second occurrence of “a pot” to the referent of the first occurrence of “a pot” if this relation is non-difference.[12]

If the limitor of the property of being the referent of the word “sky” is the property of being the locus of sound, then the subject is the locus of sound and the limitor of the property of being the subject is the property of being the locus of sound. Since the predicate is also the locus of sound, the limitor of the property of being the predicate is also the property of being the locus of sound.[13] Since there is no difference in the limitors of the property of being the subject and the predicate, there cannot be any understanding of the meaning of the sentence “Sky is the locus of sound”. In order to avoid this difficulty the ancient Nyaya philosophers have claimed that a word such as “sky”, which gives rise to the cognition of only one object (i.e. a unique object), refers to the unqualified individual only. In the Sanskrit sentence “akasah sabdasrayah” the singular first (nominative) case ending (i.e. “h”) which follows the word “akasa” refers to the number one. The number one becomes the qualifier of the unqualified sky in the memory-cognition generated by the word “sky”. Since the locus of sound is related to this thing qualified by the number one by the relation of non-difference, the above sentence would generate the cognition of the following form: The thing qualified by the number one is not different from the locus of sound.

But the Navya-Nyaya philosophers such as Gadadhara Bhattacharya have criticised this view on the ground that we cannot justify the use of the word “sky” in those cases where the referent of it is a qualifier of something else and it is not qualified by any qualifier. Consider, for example, the thing which resides in the sky (akasavasi). Here the referent of the word “sky” is related to the thing as its qualifier. But if the referent of the word “sky” is the unqualified sky, then it cannot be a qualifier of the above thing. Because a substance can never be a qualifier of something without being qualified by something else.[14] In this example, there is neither a case ending after the word “sky” nor is there any word after the word “sky” the referent of which will be a qualifier of the sky. Since the sky is not qualified by a property, it cannot be related to something else as its qualifier. For this reason the Navya-Nyaya philosophers have accepted the thing qualified by the property of being the locus of sound as the referent of the word “sky” and the property of being the locus of sound as the limitor of the property of being the referent. Now the question is how the Navya-Nyaya philosophers would answer the objection that the sentence “Sky is the locus of sound” being an identity sentence does not generate any cognition. In reply the Navya-Nyaya philosophers have said that there is a secondary relation (laksana)[15] which relates the word “sky” to the thing which has the property of being referred to by the word “sky”. Hence the secondary referent of the word “sky” is the

thing qualified by the property of being the referent of the word “sky”, which is the subject, and the limitor of the property of being the subject is the property of being the referent of the word “sky”. The predicate is the locus of sound, and the limitor of the property of being the predicate is the property of being the locus of sound. Since there is a difference between the limitors of the property of being the subject and the predicate, there is no difficulty in understanding the meaning of this sentence.

The Referent of the Word “Dhenu” (Milch Cow)

The property of being the referent of a word such as “cow” or “pot” is limited by only one property. Cowness is the limitor in the case of the word “cow” and potness in the case of the word “pot”. In such cases the referent is the thing whose property of being the referent is limited by a limitor. But in the case of the word “ dhenu” (milch cow) there are two limitors of the property of being the referent, because it refers to a cow which is capable of giving milk. Since the word “dhenu” does not apply to a calf or an old cow which is incapable of giving milk, it does not refer to each and every cow. Again the word “dhenu” does not apply to any animal which is capable of giving milk. For, if it were so, then the word “dhenu” would have been applied to an animal such as a buffalo. Hence the limitor of the property of being the referent of the word “dhenu” is neither cowness alone nor the property of being capable of giving milk alone, but both of them. Hence the referent of the word “dhenu” is that which is qualified by both the properties.

The Referents of the Homonymous Word “Hari”

There are many homonymous words; each of them has several limitors of the property of being the referent. But each use of a homonymous word gives rise to a cognition of an object which is qualified by a property which is the limitor of the property of being the referent. For example, the word “Hari” refers to Vishnu (a deity), Indra (another deity), Candra (the moon), etc. When the word “Hari” is used to refer to Vishnu, then the referent of it is Vishnu, and the limitor of the property of being the referent is the property of being Vishnu (Visnutva). When it is used to refer to Indra, the referent is Indra, and the limitor of the property of being the referent is the property of being Indra (Indratva). Similarly, when it is used to refer to Candra; the referent is Candra and the limitor of the property of being the referent is the property of being Candra (Candratva). Hence there are several properties which are limitors of the property of being the referent of the word “Hari”. There is a difference between the words “dhenu” and “Hari”, although both of them have several limitors of the property of being the referent. In the case of the word “dhenu” the referent is that which is qualified by both the limitors cowness and the property of being capable of giving milk. But in the case of the word “Hari” the referent is not that which is qualified by the property of being Vishnu, the property of being Indra, the property of being Candra, etc., because an entity qualified by these properties is an unexampled one (aprasiddha). A particular use of the word “Hari” gives rise to the cognition of an entity qualified by one of the properties. For example, in the expression “Four-handed Hari” the word “Hari” gives rise to the cognition of Vishnu qualified by the property of being Vishnu. Similarly in the expression “one thousand-eyed Hari” the word “Hari” generates the cognition of Indra qualified by the property of being Indra, and in the sentence “Hari has risen in the sky” the word “Hari” generates the cognition of Candra qualified by the property of being Candra. This is the difference between the word “dhenu” which refers to an entity which is qualified by both the limitors, and a homonymous word such as “Hari” the reference of which, in each particular context of use, is qualified by one of the limitors only.

The Referent of the Word "Puspavat" (Flowery or Blooming)

There are certain words like "puspavat" which are analogous to the word "Hari" in having several limitors of the property of being the referent. Moreover, in both the cases each of the referents qualified by one property becomes the content of understanding. But in the case of the word "Hari", a particular use of it refers to a qualified object whose property of being the referent is limited by only one limitor, while in the case of the word "puspavat" this does not hold good. The word "puspavat" has two referents, viz., the "day-maker" or the sun, and the "night-maker", or the moon. Hence the property of being the sun and the property of being the moon are the limitors respectively. A use of the word "puspavat" gives rise to the cognition of both the sun qualified by the property of being the sun, and the moon qualified by the property of being the moon. It does not generate the cognition of only the sun qualified by the property of being the sun or only the moon qualified by the property of being the moon.

The Referent of a Demonstrative Pronoun

There[16] are words like "this", "that, etc., which are capable of indicating any object. But they do not indicate every object on every occasion. Similarly, the word "he" or "she" is capable of indicating any person, although it does not indicate every person on every occasion. When a speaker uses a demonstrative pronoun, the referent of it will be the object or the person which he has cognised. In other words, a speaker after apprehending the meaning of a sentence, which he has cognised through some valid source of cognition,[17] uses a sentence with the intention of conveying his thoughts (or knowledge) to others. Hence it presupposes that the speaker has the knowledge corresponding to the sentence he uses. If the speaker cognises the meaning of a sentence, then he has the cognition of the referents of the words upon which the cognition of the meaning of the sentence is dependent.[18] The use of a word of the speaker is due to the cognition of the referent of it. The referent of a demonstrative pronoun is the particular object of cognition of the speaker which has brought about the use of it. For example "Rama is going, look at him". Here the referent of the word "him" is the object of cognition of the speaker, which is Rama in this case, and this cognition of Rama has made him use the word "him". Hence the referent of a demonstrative pronoun is the object of cognition of the speaker, which has made him use this word.

Now the question is whether Rama who is the referent of the word "him" is qualified by the property of being the object of cognition of the speaker or by the property of being Rama. In other words, the question is whether the limitor[19] of the property of being the referent[20] of "him" is the property of being the object of cognition of the speaker or the property of being Rama.[21] The word "him" would generate the cognition of Rama qualified by the property which is the same as the limitor of the property of being the referent of "him". Now if the property of being the object of cognition of the speaker[22] is the limitor of the property of being the referent of the word "him", then the word "him" would give rise to the cognition of Rama qualified by the property of being the object of cognition of the speaker. On the other hand, if the property of being Rama is the limitor of the property of being the referent of "him", then the word "him" would give rise to the cognition of Rama qualified by the property of being Rama.

Now the critics have claimed that neither of these views is acceptable. If we admit the first alternative, then the sentence "Rama has come back and he is at home" would give rise to the cognition expressible by the sentence "Rama has come back home and the object of cognition of the speaker is at home" as the word "he" refers to the speaker's object of cognition. If we admit this type of cognition from the former sentence, then an objection may be raised in the following way:

> At the time of cognising the meaning of the sentence "Rama has come back home and he is at home" there cannot be any doubt whether Rama is at home. Hence from the sentence, "He is at home" we have to admit a cognition which

> will prevent the occurrence of doubt whether Rama is at home. This doubt is about Rama qualified by the property of being Rama, and it can be prevented by a definite (certain) cognition of Rama qualified by the property of being Rama. Since a definite (certain) cognition of Rama qualified by the property of being the object of cognition of the speaker cannot prevent this type of doubt, the sentence "He is at home" should not be understood as "The object of cognition of the speaker is at home".[23]

Furthermore, we do not intuitively think that the sentence "Rama has come back home and he is at home" generates the cognition of "Rama has come back home and the object of the speaker's cognition is at home". On the contrary, we think it gives rise to the cognition of "Rama has come back home and Rama is at home". If we admit this interpretation, then the property of being Rama becomes the limitor of the property of being the referent of the word "he".

But the critics do not consider this view also to be worthy of acceptance. It is claimed that if the referent of the word "he" is Rama qualified by the property of being Rama, then the word "he", like the word "Hari", would be homonymous. (In Sanskrit the word "Hari" is a homonym for Vishnu, Indra or Candra). For, as the word "he" in the sentence "Rama has come back home and he is at home" gives rise to the cognition of Rama qualified by the property of being Rama, so the word "he" in the sentence "Syama has come back home and he is at home" would give rise to the cognition of Syama qualified by the property of being Syama, the word "he" in the sentence "Jadu has come back home and he is at home" would give rise to the cognition of Jadu qualified by the property of being Jadu, and so on. As in the case of the word "Hari" different uses of it give rise to the cognitions of Vishnu qualified by the property of being Vishnu, Indra qualified by the property of being Indra, Candra qualified by the property of being Candra, etc., so in the case of the word "he" different uses of it would give rise to the cognitions of Rama qualified by the property of being Rama, Syama qualified by the property of being Syama, Jadu qualified by the property of being Jadu, etc. Hence a demonstrative pronoun is as homonymous as the word "Hari".

Now the question is, what is the harm if a demonstrative pronoun is also homonymous? As an answer to this question it might be said that the referents of a homonymous word such as "Hari" which refers to Vishnu, Indra and Candra can be learnt from a dictionary, but the referents of a demonstrative pronoun such as "he" which refers to innumerable objects, each of which is qualified by the property of being Rama, or the property of being Syama or the property of being Jadu, etc., cannot be learnt from a grammar or dictionary, or by analogy, or from a statement of a trustworthy person, or from any other method of learning the referent(s) of a word.[24] The cognition of the property of being the referent of a demonstrative pronoun would have to depend on its occasion of use only. For example, a person (an elder issuer of command) utters the sentence "A book is on the table; please bring it here" and another person (an elder obeyer of command) brings the

book. From the activity of bringing the book we come to know that the word "it" refers to the book in this context. But in this way it is not possible to learn all other referents of the word "it". Hence from the observation of different uses we cannot cognise the property of being the referent of a demonstrative pronoun as it is used to refer to innumerable qualified objects.

As an answer to these objections the Nyaya philosophers have claimed that the referent of a demonstrative pronoun is limited by the qualifier of the cognition of the speaker, and this type of cognition of the property of being the referent is one of the causal conditions for cognising the meaning of a sentence in which a demonstrative pronoun has occurred. Let us explain this point. If a speaker uses a demonstrative pronoun, which is due to the cognition of the referent under some mode of presentation, then one of the causal conditions for the proper use of the demonstrative pronoun would be that cognition of the referent under the same mode of presentation. One of the causal conditions for the use of the word "he" in this context is the cognition of Rama qualified by the property of being Rama; because the speaker, after having cognised Rama qualified by the property of being Rama, uses the word "he" in order to convey the thought of Rama qualified by the property of being Rama. In this cognition the property of being Rama is the qualifier.[25] The referent of the word "he" is Rama qualified by the property of being Rama. Similarly, in the sentence "Syama has come back home, and he is at home" one of the causal conditions for the use of the word "he" is the speaker's cognition of Syama qualified by the property of being Syama. In this cognition the qualifier is the property of being Syama, and the referent of the word "he" is Syama qualified by the property of being Syama. Hence if the referent of a demonstrative pronoun is the thing qualified by the qualifier of the cognition of the speaker, then the limitor of the property of being the referent is the qualifier of the cognition of the speaker. In the first example, one of the causal conditions for the use of the word "he" is the property of being Rama which is the qualifier of the cognition of the speaker. Hence the property of being Rama is the limitor of the property of being the referent. In the second example, the property of being Syama is the qualifier of the cognition of the speaker. Hence the property of being Syama is the limitor of the property of being the referent. According to this view, even if the limitors of the property of being the referent of "he" are different, there is a property, viz., the property of being the qualifier of the cognition of the speaker, which is common to the properties such as the property of being Rama, the property of being Syama, etc., which are the limitors of the property of being the referent. Hence it follows that whenever a property is the limitor of the property of being the referent of a demonstrative pronoun, it has the property of being the qualifier of the cognition of the speaker.[26]

Now it may be said that if the referents of a demonstrative pronoun are those objects which are qualified by properties such as the property of being Rama, the property of being Syama, etc., which have in common the property of being the qualifier of the cognition of a speaker, then a demonstrative pronoun cannot be treated as a

homonymous word. A word does not become homonymous by virtue of having many referents. When the referents of a word cannot be collected together by a common property, but at the same time that word is capable of referring to each of the referents independently, then it is called “homonymous”. Since a demonstrative pronoun refers to objects which are qualified by properties such as the property of being Rama, the property of being Syama, etc., which have in common the property of being the qualifier of the cognition of a speaker, by an indirect relation the property of being the qualifier of the cognition of a speaker becomes a common property of the referents.[27] This is so even though there is no common property residing in the referents by a direct relation. For this reason a demonstrative pronoun is not a homonymous word.

Now an objection can be raised in the following way: That which appears as a qualifier in the cognition of the referent of a word is called “the limitor of the property of being the referent”.[28] If there is a further qualifier of this limitor, then it is called “the limitor of the property of being the limitor of the property of being the referent”.[29] If a word has this type of second-order limitor, then it will generate a cognition of the referent qualified by the limitor of the property of being the referent, which, in its turn, is qualified by the second-order limitor, viz., the limitor of the property of being the limitor of the property of being the referent. For example, the word “blind”. The referent of it is any individual (or person) qualified by the absence of vision. Here the absence of vision is the limitor of the property of being the referent. Since vision is the qualifier in this absence, it is the limitor of the property of being the limitor of the property of being the referent. Hence the word “blind” gives rise to the cognition of the person qualified by the absence which is qualified by vision. Similarly, if the referent of a demonstrative pronoun such as “he” is Rama qualified by the property of being Rama, which is qualified by the property of being the qualifier of the cognition of the speaker, then the word “he” would give rise to the cognition of the person qualified by a property which is qualified by the property of being the qualifier of the cognition of the speaker.[30] Hence the sentence “He is at home” would generate a cognition of the following form:

> The person qualified by a property which is qualified by the property of being the qualifier of the cognition of the speaker is at home.
>
> If it were so, this cognition does not really amount to a definite cognition of the presence of Rama at home, who is qualified by the property of being Rama. Hence the previous doubt about the presence of Rama at home cannot be prevented by the above cognition generated by the sentence “He is at home”.

As an answer to this objection the Nyaya philosophers have said that in the case of a demonstrative pronoun such as “he” the property of being the qualifier of the cognition of a speaker is not a qualifier of properties such as the property of being Rama. In fact, the property of being the qualifier of the cognition of the speaker is merely an indicator (upalaksana) or an introducer of a collection of discrete properties such as the property of

being Rama, the property of being Syama, etc., each of which is a limitor of the property of being the referent of the word "he". Hence the property of being the qualifier of the cognition of the speaker is not a second-order limitor of the property of being the referent of the word "he". That which is not a part of the content of understanding (or cognition) due to an expression but helps in cognising the referent of it, is called "an indicator".[31] Consider the example, "The crow- possessing house is the house of Devadatta". In this case the property of being the crow-possessing house indicates the house of Devadatta, although it is not an essential and a unique property of the house. Similarly, in the case of a demonstrative pronoun the property of being the qualifier of the cognition of the speaker helps in understanding or cognising the referent of it, although this property is not a part of the object of cognition (or what has been cognised) which is due to a demonstrative pronoun. For this reason the property of being the qualifier of the cognition of the speaker is called "an indicator".

But according to Gadadhara Bhattacarya, even if we do not accept the property of being the qualifier of the cognition of the speaker as an indicator property which is common to the limitors of the property of being the referent, it is possible, by an inference, to cognise the property of being the referent of a demonstrative pronoun in unknown objects or persons. He has said that we can cognise the property of being the referent of a demonstrative pronoun from its usage.[32] For example, when we hear sentences such as "Rama is at home, tell him to come here" and "Syama is at home, give him some clothes" and observe the corresponding actions of the doer, we cognise the property of being the referent of "him" in Rama and Syama respectively. Moreover, from the context of utterance the hearer can understand that Rama and Syama respectively are the objects of the cognition of the speaker. Afterwards, from the observation of the co-presence of the property of being the object of the cognition of the speaker[33] and the property of being the referent of a demonstrative pronoun, and from the non-observation of the presence of the former and the absence of the latter in some loci such as Rama and Syama we come to know that the property of being the object of the cognition of the speaker is pervaded by the property of being the referent of a demonstrative pronoun. This is how we come to know that smoke is pervaded by fire from the observation of the co-presence and from the non-observation of the presence of smoke and the absence of fire in some loci such as kitchen.[34] Later on, in an object or person where we have not yet cognised the property of being the referent of a demonstrative pronoun we can infer this property from the observation of the property of being the object of the cognition of the speaker in the same object or person. Hence the pervader property is being inferred from the pervaded property.[35] For example, from a context such as "A pot is in the kitchen, please bring it here" we come to know that a pot is the object of the cognition of the speaker. Since the pot has the property of being the object of the cognition of the speaker, we can infer the property of being the referent of the demonstrative "it" in the same pot qualified by potness. In this way when we come to know from a context the pervaded property of being the object of the cognition of the speaker in a qualified object,[36] we infer the property of being the referent of a demonstrative pronoun in the

same object.

The previous objection that the property of being the referent of a demonstrative pronoun cannot be known since a demonstrative pronoun can be used to refer to any object cannot be raised against the view of Gadadhara even if it is a homonymous word such that its referents cannot be known from a dictionary. This is due to the fact that the property of being the referent of a demonstrative pronoun can be inferred from the property of being the object of the cognition of the speaker. Since there are different objects of cognitions, which are causally related to different uses of a demonstrative pronoun, there are different referents of a demonstrative pronoun and different limitors of these referents. This is due to the fact that the referent of a demonstrative pronoun would be the object, the cognition of which is a causal condition for the use of that demonstrative pronoun. Hence if we know the causal condition for its use, then we come to know its referent. Therefore, the homonymous character of a demonstrative pronoun cannot be avoided, but it cannot prevent us from knowing the property of being the referent of a demonstrative pronoun.[37]

The Referent of the Personal Pronoun "I"

As we have admitted different referents of a demonstrative pronoun, so we have to admit different referents of the personal pronoun "I". The word "I" refers to a self. But, unlike the word "self" which refers to any self, the word "I" does not refer to each and every self. The word "I" refers to the self that is the agent responsible for the utterance of the word "I".[38] For we cognise the property of being the agent of going in a person who has uttered "I am going" when we hear this sentence, and we do not cognise this property in a person who has not uttered the word "I". If the word "I" did refer to any self, then any self would have been cognised from the above sentence. Since this does not happen, the referent of "I" is the self of its utterer. For this reason different referents of the word "I" are to be admitted depending on different utterers. Hence the self which is the agent of the utterance of the word "I" is the referent of it.

Now the question is, who is the referent of the word "I" when a student addressing his class-fellows says, "The teacher said 'I shall not be going to school today'"? In this case the utterer of the word "I" is a student. But he cannot be the referent of the word "I" as he is present in the school. If the utterer of "I" is the referent, then in the above sentence the student should be its referent.

In reply to this objection it has been said that the self which is the agent of the independent utterance is the referent of the word "I". As an explanation of "independent utterance" it has been said that the word "I" is independent if it has occurred in a sentence which is not the object of the verb of another sentence. The utterance of "I" in a sentence of this type is an independent utterance. The self which is the agent of this type of independent utterance is the referent of the word "I". Hence in a sentence such as "I am going", "I" is independent, and the agent of the utterance of "I" is the referent. But in the sentence "The teacher said, '1 shall not be going to school today'" the sentence "I shall not be going to school today" has occurred as the object of the verb of another sentence, and hence this utterance of the word "I" is not independent. Since this utterance of "I" is not independent, the student who is the utterer of the word "I" is not the referent of it.

Another objection has been raised in the following way. When someone, addressing a person under a vow of silence or a dumb person, says. "This person thinks I am very intelligent"[39] he is indicating the silent or the dumb person by the word "I". But a silent or a dumb person is not the user of the word "I" as he will not or cannot utter any word. Hence the referent of "I" cannot be its utterer, and the view that the referent of the word "I" is its utterer is not tenable in this case.

In order to answer these objections Gadadhara Bhattacarya has said that there are two types of the use of the word "I", viz., the word "I" which is uttered independently and the word "I" which is not uttered independently. The referent of "I" which is uttered

independently is the user of it, but the referent of "I" which is not uttered independently is the agent of the verb, the object of which is the meaning of the sentence which contains the word "I". In the above example, the meaning of the sentence "I shall not be going to school today" is the object of the action signified by the verb "said" which has occurred in the sentence "The teacher said, 'I shall not be going to school today'". Since the teacher is the agent of the act of saying, he is the referent of the word "I".

In the case of the sentence "This person thinks I am very intelligent" which is about a silent or a dumb person, the meaning of the sentence "I am very intelligent" is the object of the activity of thinking. Hence the activity the object of which is the meaning of the sentence that contains the word "I" is the activity of thinking of the silent or the dumb person. Since the silent or the dumb person is the agent of this activity, he is the referent of the word "I".

The Referent of the Personal Pronoun “You”

As the word “I” refers to different persons on different occasion, so does the word “you”. The referent of the word “you” is the person addressed. The referent of “the person addressed” is the person who is intended by the user of a sentence in which the word “you” occurs. In other words, the referent of the word “you” is the person about whom the speaker uses a sentence which contains the word “you”. Hence the referent of “you” is the person who is addressed in sentences like “you go”, “you eat”, etc.

An objection similar to that raised against the word “I” can also be raised against the word “you”. For example, a student, addressing his teacher, said, “My father said, ‘you meet the teacher’”. If the referent of “you” is the person addressed, then the teacher is the referent of “you”. But instead of the teacher being the referent of “you” the student who is the speaker is the referent of “you” in this example. Hence the view that the referent of “you” is the person addressed is not tenable.

But this objection can also be answered in the way we have answered the previous objection. In other words, there are two types of the uses of the word “you”, viz., when the word “you” is uttered independently, and when the word “you” is not uttered independently. If the word “you” which occurs in a sentence the meaning of which is not the object of another sentence, then it is called “an independently uttered ‘you’”. The referent of this type of “you” is the person who is being intended by the user of a sentence which contains the word “you”. But the word “you” which occurs in the sentence “The father said ‘you meet the teacher’” is not of this type. This is because the object of the sentence “The father said” is the action of meeting the teacher that is being conveyed by the sentence of his father “you meet the teacher” in which the word “you” occurs. Hence it is not a case of independent utterance of “you”. The referent of this “you” is not the person addressed by its speaker. For this reason the teacher who is being addressed by the student is not the referent of the word “you”. But the word “you” which has occurred in a sentence such as “you go”, the meaning of which is not the object of any other sentence, is uttered independently. Hence the referent of this type of “you” is the person intended by the speaker, who is to be cognised. But in the case of the word “you” which is not being uttered independently, the referent is the self which is an object of the action signified by the verb of another sentence such that the meaning of the sentence in which the word “you” occurs is another object.[40] What the father wants to convey is the meaning of the sentence “you meet the teacher” which contains the word “you”, and which has occurred in the sentence “The father said, ‘you meet the teacher’”. Hence the meaning of “you meet the teacher” is the object of the action of saying expressed by the word “said”. But the action of saying has another sort of object. This type of object is the person who has been addressed while using the sentence “you meet the teacher”.

Hence in the above example one of the objects is the content of “you meet the teacher”.

Since this sentence has been used by the father to address his son, the other object is the son. Hence the person who is the son in this case and who is one of the objects of the action of saying is the referent of the word “you” which has not been uttered independently, and which has occurred in a sentence the meaning of which is another object of saying.

The Referent of the Word "All"

In[41] a sentence, such as "All substances are knowable", or "All substances have knowability" the word "all" has been used as a qualifier of the subject "substances". The referent of the word "all" is the thing qualified by the property of being without remainder (asesatvavisista). Now the question is, what is the mature of the referent of the property of being without remainder? As regards the nature of this property it has been said that if we know this property, then we know the predicate in every subject which is qualified by the limitor of the property of being the subject.[42]

But even this explanation does not help us in comprehending the property of being without remainder. For this reason Gadadhara Bhattacarya has proposed a new definition of the property of being without remainder. According to him, the property of being without remainder is to be considered a number which is the same as the property of being the collection (yavatva), and this number is the pervader (vyapaka) of the limitor of the property of being the subject, and the pervaded (vyapya) of the predicate.[43] This number is the limitor of the property of being the referent of the word "all", and the collection is the referent of it.[44] Hence this number is the same as the property of being all (sarvatva), and the referent of the word "all" is the collection of things which are qualified by this number which is the same as the property of being without remainder.[45]

The word "all" which has occurred in the sentence "All substances have knowability"[46] signifies a collection qualified by the property of being the collection (i.e. a number) which is the pervader (vyapaka) of substancehood that is the limitor of the property of being the subject. Since substancehood is present in every substance, the property of being the collection (i.e., the number) which is present in every substance can be the pervader of substancehood. Again the same property of being the collection is the pervaded (vyapya) of the predicate "knowability". Since the property of being the collection (i.e. a number) is the pervaded of knowability, knowability is the pervaded of this property of being the collection. From this it follows that the property of being the collection is the pervader of substancehood and the pervaded of knowability. Hence if the property of being the collection is known as the pervader of substancehood and as the pervaded of knowability, then knowability will be cognised in every substance.[47]

If the property of being the collection did not have for its qualifier the property of being the pervaded (vyapyatva)[48] of the predicate, then the word "all" would apply to subjects which do not have the predicate and hence a sentence such as "All pots are blue" or "All pots have blue colours" would be true even if there are pots which are not blue. If we say "All pots have blue colours", then a pot is the subject, potness is the limitor of the property of being the subject, and a blue colour is the predicate. If the property of being the collection is considered the pervader of potness only and not the pervaded of the predicate, then this sentence would be true even if there are pots which do not have blue

colours. Since the property of being the collection is present in every subject, a blue pot would also be a subject. As the sentence "Some pots have blue colours" is true by virtue of the fact that a blue colour is present in a pot, so the sentence "All pots have blue colours" would be true if the blue colour is present in a pot which is qualified by this type of property of being the collection.[49] But if we apply the qualifier "the property of being the pervaded of the predicate" to the property of being the collection, then there is no scope for this type of unsatisfactory uses of the word "all".[50] The property of being the collection which is the pervader of potness resides in every pot, and it cannot be the pervaded of blue colours as this property of being the collection is present in a red or a white pot.

Similarly, if we do not apply the qualifier the pervader of the limitor of the property of being the subject to the property of being the collection, the previous unsatisfactory use of the word "all" will occur again. Consider, again, the sentence "All pots have blue colours". Here also a blue colour is the predicate, but the property of being the collection which is the pervaded of this predicate is present in every blue pot and absent from all other things. In other words, the property of being the collection is present in blue pots only. In this case the property of being all is this property of being the collection which is a number. Hence the loci of this property of being the collection would be blue pots only and these pots are qualified by potness which is the limitor of the property of being the subject. Since these pots have blue colours, the sentence "All pots are blue" would be true.[51] But this is obviously false. This unsatisfactory use of the word "all" can be avoided if we apply the qualifier "the property of being the pervader of the limitor of the property of being the subject" to the property of being the collection. For the property of being the collection, which is the pervaded of the predicate blue colours only, cannot be the pervader of potness which is the limitor of the property of being the subject as potness is present in a red or a white pot which does not have this property of being the collection.

From the above discussion it follows that if there is a property of being the collection which is the pervader of the limitor of the property of being the subject and the pervaded of the predicate, then we have to understand that the predicate is in every subject. Hence, through this understanding of the word "all", we come to cognise the predicate in every subject.

Now let us consider the word "all" which is the qualifier of the predicate. Here also the referent of "all" is a collection and the limitor is the property of being the collection which is a number. But the property of being the collection is the pervader of the limitor of the property of being the predicate and the pervaded of the relation of the subject to the predicate.[52] Let us consider the sentence "Time has all the properties". Here a property is the predicate, and the word "property" (dharma) refers to a superstratum.[53] The property of being the property (dharmatva) or the property of being the superstratum (adheyatva)[54] is the limitor of the property of being the predicate. Since the property of

being the collection is the pervader of the property of being the superstratum (adheyatva), it is present in every superstratum. Again, this property of being the collection is the pervaded of the relation of time which is the subject to its predicate, because the temporal relation is present in every property. Therefore, since the property of being the collection is the pervader of the property of being the property (dharmatva), it is present in every property; and since this property of being the collection is the pervaded of the relation of time to its predicate, the temporal relation is present in every property which is the locus of the property of being the collection.[55] Since we can derive "All properties are present in time" from "Temporal relation is present in all properties", the sentence "Time has all the properties" (or "Temporal relation is present in all properties" would ultimately generate the cognition of "all properties are in time".[56]

If we do not apply the qualifier "the property of being the pervaded of the relation of the subject (to its predicate)" to the property of being the collection, then we get an unsatisfactory use of "all" in a sentence such as "This moment of time has all the properties". Although everything is in time, the things which are not contemporaneous with reference to the present moment do not reside in it. Hence the non-contemporaneous properties do not reside in the present moment. Hence the sentence "This moment of time has all the properties" is false. But if the referent of the word "all" is simply the collection of things qualified by the property of being the collection which is the pervader of the limitor of the property of being the predicate, then this sentence would be true. This is because the present moment is the subject, a property is the predicate, the limitor of the property of being the predicate is the property of being the property (dharmatva), the property of being the collection which is the pervader of the property of being the property is present in every property, and the relation of this moment to the predicate qualifies some of the properties which are qualified by the property of being the collection.[57] Hence, as we assert the sentence "A pot has a colour" from the observation of a few colours in some pots, similarly, on this account, we ought to assert the sentence "This moment of time has all the properties" from the observed fact that some properties which are predicates and qualified by this type of property of being the collection are present in this moment. But this type of unsatisfactory consequence can be avoided if we apply the property of being the pervaded of the relation of the subject (to the predicate) to the property of being the collection. For, the property of being the collection which is the pervader of the property of being the property (dharmatva) is also present in a past and a future property, and it is not the pervaded of the relation of this moment to its predicates. Hence this property of being the collection is also present in a past and a future property which do not have the relation of the present moment to those properties. Here it is not possible to have a property of being the collection, which is the pervaded of the relation of the subject (to the predicate), and the pervader of the limitor of the property of being the predicate. Hence this use of the word "all" is unsatisfactory.

Again, we cannot avoid the above difficulty if we simply claim that the property of being

the collection is the pervaded of the relation of the subject to its predicate.[58] The relation of the subject (to its predicate) is present in those properties which reside in this moment. Hence the property of being the collection which is present only in those properties is the pervaded of the relation of the subject (to its predicate). Since the things qualified by this type of property of being the collection are those properties which are present in this moment, the sentence “This moment has all the properties” would be true. But this type of unsatisfactory assertion can be avoided by using the qualifier “the property of being the pervader of the limitor of the property of being the predicate”. The property of being the collection which is the pervaded of the relation of the subject (to its predicate) is one which is present only in those properties which reside in this moment, and this property of being the collection cannot be the pervader of the limitor of the property of being the predicate as this limitor is present in past and future properties also. Hence, in the above example, the property of being the collection, which is both the pervaded of the relation of the subject (to its predicate) and the pervader of the limitor of the property of being the predicate, will not be exemplified.

To sum up, the word “all” which is a qualifier of a subject-expression signifies the presence of the predicate in every subject, and the word “all” which is a qualifier of a predicate-expression signifies the presence of every predicate in the subject. This has been explained by applying the pervader-pervaded relation to the property of being the collection, which is the limitor of the property of being the referent of the word “all”.

The Referent of an Interrogative Pronoun

When a speaker wants to know something, in order to express this desire he uses a sentence which contains an interrogative pronoun. From this sentence a hearer realises the desire of the speaker, and he tries to answer his question by giving an appropriate answer. Hence, in general, when we use an interrogative pronoun, what is being asked is the referent of the pronoun. But what is being asked is not of the same type in all contexts. There is some difference in the referent of an interrogative pronoun depending on the use of it in different contexts, although a question is involved in almost all uses of an interrogative pronoun, I would like to discuss these differences in terms of different examples.

For example, in the sentence "Who is cooking?" the word "who" is used as a subject-expression. For, if the answer is "Rama is cooking", then the referent of the word "Rama" is the subject, and the referent of "is cooking", viz., the property of being the agent of cooking, is related to Rama as its predicate. Since the word "who" has been used in place of the word "Rama", the word "who" in this case is called a "subject-expression". The referent of this use of the word "who" is a qualified object, a property of which is the object of the speaker's desire to know (jijnasita). Hence the sentence "Who is cooking?" would give rise to the cognition of an agent of cooking who is qualified by a property which the speaker desires to know. From a question of this type a hearer would understand that the speaker is asking about a property of the agent of cooking, such as the property of being a Brahmin, etc. Thereafter, the hearer, in order to answer the question of the speaker, says, "A Brahmin is cooking" and the speaker is satisfied with the answer, because he has now cognised a property of the agent of cooking, which he wanted to know.

Now an objection may be raised in the following way: If the speaker wanted to know any property of the subject, then his question would have been answered if he would have mentioned any property of the subject such as knowability or humanity in the reply "A knowable is cooking" or "A human is cooking". But the speaker is not satisfied with this type of answer. Moreover, no one answers the question "Who is cooking?" in terms of "A knowable is cooking" or "A human is cooking". Hence it is not correct to say that in the question "Who is cooking?" what is being asked for is any property of the subject.

As an answer to this objection it has been said that the referent of an interrogative pronoun is qualified by a property which is less occurrent than the predicate. The expression "less occurrent than the predicate" refers to a property which occurs in fewer of the loci than the predicate occurs in.[59] In the above sentence the predicate is the property of being the agent of cooking. Hence from the sentence "Who is cooking?" the hearer would understand that the speaker would like to know a property of the agent of cooking, which occurs in fewer of the loci than the property of being the agent of cooking occurs in. The property knowability or humanity does not occur in fewer of the loci than

the predicate, for knowability or humanity is present wherever the property of being the agent of cooking is present. Hence the speaker does not desire to know the property knowability or humanity. For this reason the reply "A knowable is cooking" or "A human is cooking" is not consistent with the intention of the questioner.

When an interrogative pronoun is used as a qualifier of the subject-expression in a sentence such as "Which Brahmin is cooking?", the speaker intends to know a special property of the Brahmin. Hence the referent of the interrogative pronoun is the person qualified by a property which is less occurrent than the property of being a Brahmin, and which the speaker desires to know. In the sentence "Which Brahmin is cooking?", the subject is a Brahmin, the limitor of the property of being the subject is the property of being a Brahmin, and the properties which are less occurrent than the property of being a Brahmin, such as the property of being Rama, the property of being Syama, etc., are the special properties of a Brahmin. Since this is what is being asked by this sentence, the hearer, after understanding its meaning, answers by mentioning the name of a Brahmin, such as "Rama", "Syama" etc. But he does not answer by saying "A human is cooking". Since the property humanity is not less occurrent than the property of being a Brahmin which is the limitor of the property of being the subject, it is not what the speaker desires to know.

When an interrogative pronoun is used as a predicate- expression in a sentence such as "Who is he?", the referent of the word "he" is the subject, and the referent of the word "who" is the predicate. Here the referent of the word "who" is a person qualified by a property which the speaker desires to know. Hence after hearing the interrogative sentence "Who is he?" the hearer understands that the speaker desires to know a special property of the predicate in relation to which he is the subject. For this reason, in order to specify a special property of the predicate, the hearer replies, "He is a Professor", "He is a doctor", etc.

When an interrogative pronoun is used as a qualifier of the predicate in a sentence such as "What is this substance?", the referent of the word "this" is the subject, the substance is the predicate, and the referent of the word "what" is a qualifier of the substance, which is the thing qualified by a property that is the pervaded (vyapya) of the limitor of the property of being the predicate, and which the speaker desires to know.[60] In this case the speaker desires to know, out of nine types of substances, in which this substance is to be included. In other words, the questions is, what is the property which qualifies this substance out of nine types of properties such as earthiness, waterhood, etc. which are pervaded by substancehood? When the hearer is being asked in this way, he replies, "This is water", or "This is earth", etc.

After observing a running animal someone asked "Is it a cow or a buffalo?"[61] Since, due to light or distance, he could not determine its property cowness or buffalohood, he doubts whether it is a cow or a buffalo. In order to express his doubt he uses the

sentence “Is it a cow or a buffalo?” (or the sentence “What is it? Is it a cow or a buffalo?”). In such cases an interrogative pronoun (or sign, like a question mark) signifies a doubt. In the above example, a cow and a buffalo are related to this doubt as its qualifiers and the doubt which is the referent of the interrogative pronoun is the qualificand of these qualifiers. And the doubt, in which a cow and a buffalo are related, is related to the referent of the word “it”. Hence the sentence “Is it a cow or a buffalo?” would generate a cognition of the following form: The qualificand it is qualified by the doubt of which a cow and a buffalo are qualifiers. Hence a hearer of this sentence understands that the speaker has a doubt about this running animal and the content of this doubt vacillates between a cow and a buffalo. Thereafter the hearer, in order to remove his doubt, uses an appropriate sentence.

Sometimes an interrogative word (or sign) is used to refer to something indecent or nasty. For example, the sentence “Is he a Brahmin?” is sometimes used to refer to an abominable Brahmin. Here the referent of the interrogative sign (or the word “kim” in Sanskrit) is the person who lacks the qualities which are worthy of a Brahmin. Hence the above sentence generates a cognition of the form: This Brahmin does not have the qualities which are worthy of a Brahmin.

Sometimes the word “kim” in Sanskrit which is generally used as an interrogative pronoun is used to refer to something indescribable. For example, someone, after climbing the Kailasa-peak, looks at the beautiful sight of the Himalayas and utters the sentence, “What (kim) a beautiful sight of the Himalayas!” Here the word “what” refers to something which is qualified by the property of being indescribable, i.e. which cannot be described in language.

The Referent of the Word "One"

If the referent of the word "one" is the object qualified by the property of being the number one only, then we cannot truly assert the sentence "One person is eating in this house" when several persons are eating in the same house. For the sentence "One person is eating" gives rise to the cognition of a person qualified by the property of being one, who is the agent of eating. Where several persons are eating, the number the property of being one resides in each of them. Hence it can be said that a person qualified by the property of being one is eating.

In order to answer this type of objection Gadadhara Bhattacarya has said that the referent of the word "one" which is used as a qualifier of the subject-expression is the thing qualified by the property of being one, which is the same as the property of being the non-counterpositive of the difference that resides in the subject qualified by the predicate.[62] In the sentence "One person is eating", the predicate is the property of being the agent of eating, and the subject is a person. If two persons, viz., a and b, are eating in the house, then the subject qualified by the predicate the property of being the agent of eating would be both a and b. Now a does not have the property of being one. For the difference from a is present in the subject b which is qualified by the predicate the property of being the agent of eating, and since the property of being the counterpositive of this difference resides in a, the above-mentioned property of being one does not reside in a. Similarly, the property of being one does not reside in b also. For a is the subject qualified by the predicate the property of being the agent of eating, and the difference present in a is the difference from b. Since the property of being the counterpositive of this difference resides in b, the above-mentioned property of being one cannot reside in it. Therefore, if there are many subjects qualified by a predicate, this type of property of being one will not reside in any one of them.[63] Hence in such cases, if we use a sentence which contains "one" as a qualifier of the subject-expression, then the sentence would not be true. But if the subject qualified by the said predicate is the only object, then it (subject) is the non-counterpositive of this type of difference. For example, where a alone is eating, there a is the subject qualified by the predicate, and nothing else is the subject qualified by the predicate. Since a cannot have its own difference in it, a is the non-counterpositive of the difference which resides in the subject qualified by the predicate.[64] Hence if a alone is the subject qualified by the predicate, then "one" can be correctly used as a qualifier of the subject-expression.

The above objection can also be raised where the word "one" is a qualifier of the predicate-expression. For example, we cannot assert truly the sentence "The house has one pot" (i.e. "The house is one-pot-possessor") if the house has several pots. For the sentence "The house has one pot" gives rise to the cognition of the house to which a pot qualified by the property of being one is related. But to this it may be objected that the property of being one resides in each of the pots present in the house. Hence it can be said that since a pot qualified by the property of being one is present in the house, we

can correctly use the sentence "The house has one pot" (i.e. "The house is one-pot-possessor") even if there are several pots in the same house.

As an answer to this objection it has been said that the referent of the word "one" which is a qualifier of the predicate-expression is the object qualified by the property of being one that is the same as the property of being the non-counterpositive of the difference which resides in the predicate that is related to that of which it is a qualifier.[65] In the sentence "The house has one pot", a pot is the predicate and it is a qualifier of the house. Hence what is being said is that the property of being one resides in a pot which is related to the house. Now let us suppose the pots a, b and c are in the house. Since there are several pots in the house, each of them is a qualifier of the house to which each of them is related. But none of them has the property of being one which is the same as the property of being the non-counterpositive of the difference residing in a pot which is related to the house. Since the difference from b and c is present in a which is related to the house, b and c are counterpositive of this difference. Again, since the difference from a resides in b and c which are related to the house, a is also a counterpositive of this type of difference. Hence if there is more than one predicate which is related to the subject, it is not possible for any of those predicates to have the property of being one. Thus the use of the word "one" in such contexts is not correct. On the contrary, if the house has only one pot which is a qualifier of the house to which it is related, it does not have its own difference. Since it does not have its own difference, it becomes the non-counterpositive of the difference which resides in a pot that is related to the house. Hence the word "one" can be used correctly as a qualifier of a predicate-expression in those cases where only one predicate is present in the subject.

The Cognition of the Property of Being the Referent in a Supersensuous Referent such as "Sky" (or "Ether")

We[66] have accepted many supersensuous objects such as sky which are not amenable to sense-experience. A substance has been accepted as the substratum of sound, and this substance cannot be experienced by any sense-organ. The Nyaya and the Vaisesika philosophers have accepted this supersensuous substance which is the substratum of sound as the referent of the word "sky" (akasa). Similarly, virtue and vice are beyond our sense-experience.[67] Since happiness and misery are apprehended in our souls,[68] we have to admit some causes of our happiness and misery. That which is the cause of our happiness is virtue, and that which is the cause of misery is vice. In this way, philosophers have accepted many types of supersensuous objects such as heaven and hell, and each of them is referred to by an expression. Now the question is, how do we cognise the property of being the referent in these supersensuous objects? In the case of words such as "cow", "pot", etc., we cognise the property of being the referent when we cognise a cow, a pot, etc., through perception. But a supersensuous object cannot be presented to us through perception. Therefore, it may be said that since a supersensuous object cannot be the object in the cognition of the property of being the object, it is not possible from an expression to have the cognition of the property of being the referent in a supersensuous object.

Now it may be said that from the understanding of the true sentence (or a definition in this case)[69] "a kokila (cuckoo) is the referent of the word 'pika'", we cognise the property of being the referent of the word "pika" in the memory-cognition of a special type of bird, which is due to the word "kokila". Similarly, from the understanding of the definition "Gagana[70] is the referent of the word 'sky'", we cognise the property of being the referent of the word "sky" in a special type of substance which is the substratum of sound and which is presented to us due to the word "gagana".

But this argument cannot be justified. If a person already knows the referent of the word "kokila", then he can cognise a cuckoo which is due to the word "cuckoo" and subsequently he can cognise, from the above definition, the property of being the referent of the word "pika" in a cuckoo which is presented to him by the word "cuckoo". But if a person does not know the referent of the word "kokila", then he cannot cognise the property of being the referent in it from the above definition. Similarly, if a person does not know the referent of the word "gagana", it is not possible for him to cognise the property of being the referent of the word "akasa" from the above definition. Hence in order to cognise the property of being the referent from the definition "Gagana is the referent of the word 'akasa'", what is required is the cognition of the property of being the referent of the word "gagana". In order to cognise the property of being the referent of the word "gagana", the supersensuous gagana should be presented to us. Hence the problem which arose in the case of the cognition of the property of being the referent of

the word “akasa” arises in the case of the cognition of the property of being the referent of the word “gagana”.

In reply it has been said that if a supersensuous object is presented to us by a sentence, then it is possible to cognise in it the property of being the referent of a word which refers to a supersensuous object from a definition of it. Consider the sentence “The locus of sound”.[71] We know the referent of each of the words in this sentence. The referent of the word “sound” is a type of quality which is cognisable through the auditory sense-organ, and the referent of the word “locus” is a substratum. Hence when we hear this sentence “The locus of sound”, the referents of those two words are presented to us, and the relation of one to the other becomes the object of our cognition. This relation of one to the other in the form of the cognition of the substratum of sound will be generated. This cognition will be the understanding of the meaning of the above sentence. Thereafter, the definition “The locus of sound is the referent of the word ‘sky’” will generate the cognition of the property of being the referent of the word “sky” in the referent which is the substratum of sound and which is presented to us by the sentence “The locus of sound”. Similarly, consider the sentence “The cause of our happiness is a quality present in our soul”. We know all the referents of each of the words in this sentence. Hence when we hear these words, we get a memory-cognition of their referents. Subsequently, when the relation of one referent to another becomes the content, the understanding of the meaning of this sentence in the form of a qualificative content is generated. Now if a trustworthy person say, “The cause of our happiness, which is a special type of quality of a soul, is the referent of the word ‘virtue’”, then the cognition of the property of being the referent of the word “virtue” in a supersensuous quality of a soul cannot be prevented. In this way we can have, without any difficulty, the cognition of the property of being the referent of a word such as “sky”, “virtue”, “vice”, etc. in the supersensuous referent which is presented to us by a sentence that consists of words, the referents of which are amenable to sense-experience.

The scriptures contain a detailed description of supersensuous objects such as heaven, hell, etc. If we understand the meaning of these descriptive sentences, then there is no difficulty in cognising the properties of being the referents of word such as “heaven”, “hell”, etc., which refer to supersensuous objects, in the descripta of those descriptive sentences. In this context it is to be noted that as a sentence presents a supersensuous object, so does an inference. Hence we can similarly cognise the property of being the referent of a word which refers to a supersensuous object in the referent that is presented to us by an inference. Considering the length of this paper, this point has not been explained in this context.

There is No Property of Being the Referent in an Unreal Object Such as the "Hare's Horn"

Now an objection may be raised in the following way. If we admit the cognition of the property of being the referent in the referent of a sentence, as we did in the above examples, then after hearing the sentence "The hare's horn" we should admit the cognition of the property of being the referent in the hare's horn which is the content of understanding the meaning of this sentence, and which can be the referent of some imaginary[72] word. But the Nyaya philosophers do not subscribe to this view, for they do not consider an unreal object such as the hare's horn as a referent.

In reply to this objection it has been said that there cannot be any cognition of the property of being the referent of a word in the unreal hare's horn. If we admit the cognition of the property of being the referent in the hare's horn, then we have to admit the hare's horn as the object of this cognition. But the hare's horn cannot be an object of a cognition by any means (sources) of valid cognition. Since there is no sense-contact (ordinary or extraordinary) with the hare's horn, it cannot be the object of a cognition through perception; since the hare's horn has no pervasion (universal concomitance), it cannot be an object of inference;[73] since it has no similarity, it cannot be known through analogy; and since the cognition of the property of being the referent is not possible in the hare's horn, it cannot be known through testimony.[74]

Now it may be said that the sentence "The locus of sound" gives rise to the cognition of a sound, its locus and the relation of the former to the latter, and thereby the cognition of the substratum of sound, and later on we cognise the property of being the referent of the word "sky" in the substratum of sound from the definition "The referent of 'sky' is the locus of sound". Similarly, we have the cognition of the horn which is related to a hare from the expression "The hare's horn". Thereafter, from a similar definition, the property of being the referent of a word will be cognised in the horn related to a hare, which is cognised due to the expression "The hare's horn".

But this argument cannot be justified as the certain (doubt free) cognition of the absence of something prevents the cognition of its presence if the latter cognition is due to an expression.[75] In other words, if we want to convey by a sentence the relation of something to something else, then the doubt free cognition of the absence of the former in the latter prevents the occurrence of the cognition from the sentence.[76] By the sentence "The hare's horn" we signify the relation of a hare to the horn. Hence, our definite (doubt free) cognition of the absence of a hare in the horn prevents the occurrence of the cognition from the above sentence. We know the absence of a hare in a horn, for we know that a hare has no horns. Therefore, due to the presence of the preventer cognition, the above sentence does not give rise to any corresponding cognition. For this reason the hare's horn cannot be presented to us by an expression.

Now it may be said that if a person does not know that a hare has no horn, then he can have the cognition of the hare's horn from the sentence "The hare's horn". This is possible due to the absence of any preventer cognition. Hence this type of person can have the cognition of the property of being the referent in the hare's horn which is presented to him from the understanding of the sentence "The hare's horn".

But from the standpoint of the Nyaya this argument also is not flawless. He who cognises the horn in a hare is considered as an ignorant person by all the learned people. The cognition of the horn in a hare is an erroneous cognition. In an erroneous cognition the qualificand is the content and the qualifier is also the content, but the relation between the qualificand and the qualifier is not the content.[77] If the relation between the qualificand and the qualifier were the content, then the cognition would have been valid, not erroneous. Since the relation between the qualificand and the qualifier is not the content, the qualified object also is not the content of an erroneous cognition. This is because the qualificand in relation to the qualifier is called "the qualified object".[78] Therefore, since an erroneous cognition does not have the relation between the qualificand and the qualifier as its content, it does not have the qualified object as its content. In other words, the qualificand as related to the qualifier is not the content of an erroneous cognition. Hence the content of the cognition of an ignorant person is a hare and a horn, but not a hare related (in the way an ignorant person thinks) to a horn. In fact, an unreal hare's horn is not a content of either an erroneous or a valid cognition. Hence it is not possible to have the cognition of the property of being the referent in a hare's horn which is presented to us by the understanding of a false expression. The Nyaya philosophers have admitted the property of being the referent in a hare corresponding to the word "hare" and the property of being the referent in a horn corresponding to the word "horn" in that erroneous cognition. But since an unreal hare's horn cannot be presented to us by any source of cognition, we cannot have the cognition of the property of being the referent in it.

A Sentence Has No Reference

The[79] sentence “Bring a cow” gives rise to the cognition of bringing a cow as the desired goal of the speaker. Now the question is whether bringing a cow as the desired goal is the referent of the entire sentence “Bring a cow” or the combined independent referents of the words which have occurred in this sentence gives rise to the cognition of this sort. In other words, the question is whether the cognition of a set of referents which are related to each other in a certain way is generated by a sequence of words. As a matter of fact, the entire sentence as a whole does not have any referent. The meaning of a sentence depends on the referents of the words which have occurred in it as the strength of a king depends on the strength of his army. This view is in accordance with the Nyaya tradition. According to this view, since there is a relation between a word and its referent, the referent of a word is cognised or remembered from the cognition of a word. Thereafter, the remembered objects, having been related to one another by the relation of qualificand-qualifier, give rise to the cognition of a qualified object. This is called “the understanding of the meaning of a sentence”. According to the Nyaya the cognition of a referent which is due to a word is an indispensable causal factor in understanding the meaning of a sentence.

Now it may be said that one can understand the meaning of a sentence without having any cognition of the referents as generated by the words occurring in it. For children understand the meaning of a sentence before cognising the referent of a word. Let us consider the cognition of the property of being the referent from a usage. For example, a child realises, when he hears the sentence “Bring a cow” as uttered by a speaker and observes the act of bringing a cow, that the doer of the action has engaged himself in the act of bringing a cow after having cognised that the bringing of a cow is the desired goal of the speaker. When a child has a cognition of this sort, he will understand that the bringing of a cow is the desired goal. Hence the sentence “Bring a cow” means that the bringing of a cow is the desired goal and the child understands this meaning. But before understanding the meaning of this sentence, the child does not know which word refers to which object. Again, after understanding this sentence the child, let us say, hears the sentence “Bring a horse”, and observes the relation of the action of bringing to a horse. In this way the child hears different sentences which include words such as “a horse”, “a cow”, etc., and observes that the hearer brings different animals on different occasions. Thus, after having heard the sentence several times, and having observed the action associated with it regularly, the child understands that the hearer cognises an animal with a dewlap if the word “cow” occurs in the sentence; and if it does not occur in it, then he does not cognise this type of animal. This is how the child understands that the referent of the word “cow” is an animal with a dewlap. In this way, after understanding the meaning of a sentence, the child comes to know the property of being the referent of a word which has occurred in it. Therefore, since the cognition of the property of being the referent occurs after understanding the meaning of a sentence, the former cannot be the cause of the latter.

Now it may be asked, if the cognition of the property of being the referent of a word is not causally related to the understanding of the meaning of a sentence, then what is the use of it? In reply it has been said that the cognition of the property of being the referent is sometimes useful for understanding the meaning of a sentence. Where the property of being the referent of a word is already cognised before understanding the meaning of a sentence, there we do not need to observe the use of a sentence in order to cognise the property of being the referent. In such cases the cognition of the property of being the referent of a word is causally related to the understanding of the meaning of a sentence. But this reply simply establishes that for understanding the meaning of a sentence the cognition of the property of being the referent of a word is not always necessary.[80]

Another utility of the cognition of the property of being the referent of a word is the speaker's application of a word in the use of a sentence. If the speaker knows that the word "cow" gives rise to the cognition of an animal with a dewlap, then he uses it to indicate that type of animal. Hence, for the sake of the speaker's use of a sentence, the cognition of the property of being the referent has been emphasised so much.

But the Nyaya philosophers argue that the understanding of the child in the above example from the observation of the use of a sentence, which is independent of the cognition of the property of being the referent of a word, is not in fact a case of understanding the meaning of a sentence. This is due to the fact that cognition of the referents of the words which have occurred in a sentence is not a case of understanding the meaning of it. If it were so, then a visual perception (i.e. a cognition due to the visual sense- organ) such as the perception of this pot which is due to the visual sense-organ, would have been a case of understanding the meaning of a sentence. In this cognition, which is due to the visual sense-organ, the meaning of the sentence "This is a pot" has become the content. For this reason the understanding of the meaning of a sentence is one which is caused by the cognition of the words which have occurred in it. In other words, the understanding of the meaning of a sentence is generated by the words (i.e. by the cognition of the words). From the observation of the bringing of a cow by the hearer, the child, first of all, infers that the said action is due to a conscious effort, the content of which is the bringing of a cow; for every voluntary action toward some end is due to conscious effort to achieve that end, just as our act of sucking is due to a conscious effort to achieve this end.[81] Then the child makes another inference which takes the following form.

The conscious effort of bringing a cow is due to the cognition that the act of bringing a cow is the desired goal, just as our conscious effort of sucking is due to the cognition that sucking is the desired goal. Hence the second inference gives rise to the cognition that the act of bringing a cow is the desired goal. This cognition is not a case of understanding the meaning of a sentence. This cognition would not have been generated by the words alone without the observation of the act of bringing a cow. The cognition of the child that

the bringing of a cow is the desired goal is due to the inferential mark. After this cognition the child ascertains that a set of words uttered by the speaker is the cause of the hearer's cognition that the bringing of a cow is the desired goal; as there is no other cause of it. To know a set of words as the cause of understanding and to understand the meaning of a sentence are not one and the same thing. If a person asks another person to do something in a language which is difficult for me to understand then, from the observation of the action of the addressee, I can simply understand that he has been asked to do that action. In fact, for me, it is not a case of understanding the meaning of this sentence. Similarly, in our above example, the child comes to know by inference that the hearer has been asked to bring a cow. In this case the child does not have the understanding of the meaning of the sentence.[82]

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[1] Here the author uses the expression "sarthaka sabda", which refers to a meaningful word or morpheme, not phonemes. A sentence for the Nyaya construction is treated as a set of morphemes which are related to each other in accordance with the syntax of language. What follows from this conception of a sentence is that any well-formed meaningful expression which consists of at least two morphemes is a sentence. Hence the English expressions such as "cooks", "cooked", "a cook", "the cook, , or "cooks rice" would be treated as sentences in the Nyaya system.

[2] The Nyaya has drawn distinctions among the terms "sentence", (vakya), "meaning of a sentence" (vakyartha), and "understanding the meaning of a sentence" (vakyarthabodha or sabdabodha). A sentence is an ordered n-tuple, where n is greater than or equal to 2 morphemes or meaningful expressions. Hence a sequence of morphemes having mutual syntactic expectancy would constitute a sentence. The meaning of a sentence as distinct from the words which have occurred in it lies in the relation between the referents of its two parts. This relation is a function of syntactic expectancy between its two parts. Hence the meaning of the entire sentence together with its parts is not just a function of the meanings of the words which have occurred in a sentence.

[3] According to the Nyaya the expressions "vakyarthabodha", "sabdabodha" and "anvayabodha" are co-extensive expressions.

[4] According to the Nyaya a relation always resides somewhere.

[5] Here the word "vacakata" means the property of being a word which is due to referent's relation to a word. In other words, when a referent is related to a word, the word has the property vacakata, which is a type of relational abstract property.

[6] According to the Nyaya, when we talk about the terms of a relational situation such

as aRb, a is the first term and b is the second term of R. But in the cognition of aRb, a is the qualificand and b is the qualifier. Hence a qualificand is a cognitive analogue of a first term and a qualifier is the cognitive analogue of a second term.

[7] Here the word “vacyata” means the property of being a referent which is due to a word’s relation to a referent. When a word is related to a referent, the referent has the property vacyata, which is a type of relational abstract property. Vacakata and vacyata are correlative relational properties.

[8] A jati in the technical sense is an unanalysable eternal property corresponding to a class containing more than one member and this property is common to all the members of this class and resides in its members by the relation of inherence.

[9] The word “akasa” has been translated as “sky” or “ether”. But none of these seem to be an accurate translation. According to the Nyaya, akasa is one all-pervasive substance which is the locus of sound. For the convenience of our discussion I have used the word “sky” for akasa.

[10] The term “uddesya” in such contexts is synonymous with the term “qualificand”, and it is the epistemic counterpart of a subject-expression. When a term plays the role of a subject it has the property of being the subject (uddesyata). The mode of presentation of the subject is the limitor of the property of being the subject (uddesyatavacchedaka).

[11] Since the terms “uddesya” and “vidheya” are correlatives, the relational abstract properties uddesyata and vidheyata are also correlative properties. The term “vidheya” refers to the epistemic counterpart of a predicate-expression in the discussion. The mode of presentation of the predicate is the limitor of the property of being the predicate (vidheyatavacchedaka).

[12] In the Nyaya technical sense “understanding the meaning of a sentence” means “understanding the relation between the subject and the predicate (or qualificand and qualifier)”.

[13] By using the X-operator the property of being the locus of sound may be symbolised as: (Xy) (y = (ix) (Fx)), where “X-operator” stands for “lambda operator” and “ix” for “the so-and-so”.

[14] What the Nyaya says is that when a predicate is applied to a subject, the predicate must be presented under some mode of presentation so that we can distinguish it from the subject. Hence it must be qualified by a property.

[15] The relation between a word and its referent is called “vrtti”. There are two types of this relation depending upon whether a word refers to the primary referent or the

secondary referent. The relation between a word and its primary referent is called "samketa" (primary relation), and the relation between a word and its secondary referent is called "laksana" (secondary relation). A secondary referent is something which is related to the primary referent by some relation. In the limiting ease it could be identical with the primary referent.

[16] Here the author uses the word "tatpada" which includes not only demonstrative pronouns such as "this" or "that", but also third person personal pronouns such as "he" or "she". Since the words "this person" or "that person" can be used instead of "he" or "she", the latter would receive the same analysis as the former. In this paper the author is discussing both the referent and the meaning of a pronoun. Here the word "meaning" will mean the mode of presentation of the referent, which determines the referent or the reason for applying an expression to the object(s) to which it applies. The author uses the words "sakya" and "sakyatavacchedaka". The former may be translated as "referent" and the latter as "the limitor of the property of being the referent". The limitor will determine the referent(s) of an expression but it cannot be equated with the sense of Frege.

[17] If the meaning of a sentence is cognised through some valid source of cognition, and is free from defects, then it amounts to knowledge. The Nyaya philosophers have accepted perception, inference, analogy and testimony as valid sources of cognition.

[18] The Nyaya has drawn distinctions among the terms "sentence" (vakya), "meaning of a sentence" (vakyartha) and "cognising the meaning of a sentence" (vakyarthabodha) or (sabdabodha). A sentence is a set of morphemes which are related to each other in accordance with the syntax of language. According to the Nyaya conception of a sentence, any well-formed expression which consists of at least two morphemes is a sentence. If we apply the Nyaya definition of a sentence to English expressions such as "cooks", "cooked", "a cook", "the cook", "cooks rice", etc., then they would be considered sentences. As regards meaning, the Nyaya claims that the meaning of a sentence as distinct from the meanings of the words which have occurred in it lies in the relation between the referents of its two parts. The cognition of this relation is due to cognition of syntactic expectancy between its two parts. Hence the meaning of the entire sentence together with the meanings of its parts is not just a function of the meanings of the words which have occurred in it. We cognise the meaning of a sentence as distinct from the cognition of the meanings of its parts, when we cognise the relation between the referents of its two parts.

[19] The word "limitor" (avacchedaka) is a technical term of the Nyaya and it has been used in different senses in different contexts. The use of it in this context may be defined in the following way: x is limited by y iff (a) x and y are properties (b) x is a relational property, and (c) y is a mode of presentation of the object or determines the object where the relational property x resides.

[20] "The property of being the referent" (vacyata) is also a technical term of the Nyaya. If something is the referent of a term, then it has the property of being the referent. It is a type of relational property of the referent. By introducing this type of property the Nyaya emphasises the role of the object as the referent of the term.

[21] As regards the property of being Rama which is the limitor, there is some difference of opinion among the Nyaya philosophers. We may come across five different views in the Nyaya literature.

(a) Some Navya-Nyaya philosophers have treated it as a class-character which is on a par with a universal such as cowness. As the term "cow" refers to a set of particular cows in which cowness resides, so the name "Rama" refers to a set of Rama-individuals in which the property of being Rama resides. Hence the word "Rama" refers to a series of Rama- individuals such as the Rama of boyhood, the Rama of adulthood, the Rama of old age, etc. According to this interpretation, a proper name such as "Rama" is on a par with a general term.

(b) According to the second view, the property of being Rama is not a class-character or universal. Moreover, it cannot be identified with any property expressible by a definite description such as "the eldest son of Dasaratha" or "the husband of Sita". Jagadisa, in the context of his discussion on paksata, has pointed out that the property of being Rama is the individual Rama as the second term of the relation of identity, the first term of which is also Rama. Hence the second view defines the property of being Rama in terms of the relation of identity of Rama. In this context it is to be noted that according to the Nyaya every object has its own relation of identity.

(c) According to some other Nyaya philosophers, such as Raghunatha, the property of being Rama cannot be identified either with Rama or with any other category of the Nyaya system. It is a separate irreducible category by itself.

(d) According to another interpretation, the property of being Rama is a function of the uniquenesses of the parts of Rama. Since the ultimate parts of any created object have their own uniquenesses, the uniqueness of a created object is to be explained as a function of the uniquenesses of its parts and ultimately in terms of the uniquenesses of its irreducible parts.

(e) Following Raghunatha, the role of an indicator (upalaksana) may be assigned to the property of being Rama. An indicator is something which fixes or indicates the referent of a term. In this sense any referential definite description of Kripke or Donnellan, which fixes the referent of a proper name, may serve as the property of being Rama. Hence this view will equate the property of being Rama with any

contingent property of Rama so long as it can be used to fix the referent of “Rama”.

[22] Here “the object of cognition” should not mean the object of any cognition. By the word “cognition” we refer to the cognition of the speaker, which is a causal condition for the use of the word “him”. Now we have to take into account the object of this cognition. The relation of this cognition to its object would be the property of being the object of this cognition, and this property is being considered the limitor of the property of being the referent of “him”.

[23] In this context it is to be noted that the Nyaya philosophers have admitted several ways of learning the referent(s) of a word, such as vrddhavyavahara (the use of words by the elders), aptavakya (a statement of a trustworthy person), vyakarana (grammar), upamana (analogy), kosa (dictionary), vakyasesa (the rest of the sentence), vivrti (explanation),siddhapadasannidhya (proximity of words, the referents of which are already known). Although several methods of learning the referents of a word have been recognised, the method of learning from the usage of elders is considered the primary and most effective means of learning the referent(s) of an expression.

[24] The Nyaya has accepted a distinction between a qualificative and a non-qualificative cognition. A qualificative cognition can be expressed by the form “aRb” where a is the qualificand, b is the qualifier, and R is the qualification relation between them. If Rama has been cognised under the mode of the property of being Rama, then Rama is the qualificand, the property of being Rama is the qualifier, and the relation of the latter to the former is the qualification relation. But in a non-qualificative cognition the ultimate elements of a qualificative cognition are cognised by themselves.

[25] This argument exhibits the following form: If a is related to b by the relation R, and b is related to c by the relation S, then a is related to c by the relation R/S which is an indirect relation in the Nyaya system. Hence if the property of being the qualifier of the cognition of a speaker is related to the property of being Rama by the relation R, and the property of being Rama is related to Rama by the relation S, then the property of being the qualifier of the cognition of a speaker is related to Rama by the relation R/S.

[26] In this context the author is emphasising only the epistemic aspect of a limitor. Hence the above definition of a limitor is to be presupposed in this discussion.

[27] Here the Nyaya has introduced two relational properties, viz., the property of being the referent and the property of being the limitor, to emphasize the role of these entities. In a simpler way it may be said that the referent is determined by the first-order limitor and the first-order limitor is determined by the second-order limitor.

[28] This view has been put forward to avoid the homonymous nature of a demonstrative pronoun. If it is claimed that a particular use of “he” would give rise to the cognition of

Rama qualified by the property of being Rama, which is qualified by the property of being the qualifier of the cognition of its utterer, and another use of "he" would give rise to the cognition of Syama qualified by the property of being Syama, which is qualified by the property of being the qualifier of the cognition of its utterer, and so on, then again the previous objection that it is a homonymous word cannot be avoided. Hence in order to avoid this objection it is claimed that the word "he" gives rise to the cognition of the person who is qualified by a property which is qualified by the property of being the qualifier of the cognition of the speaker. Here the referent of "he" is a particular person and the limitor of the property of being the referent is the property which is qualified by the property of being the qualifier of the cognition of the speaker.

[29] It is to be noted that the property of being the qualifier of the cognition of the speaker, which (cognition) is one of the causal conditions for the use of the word "he", is a common property which is related to the referents of "he" by an indirect relation; but it cannot be taken as the limitor of the referents (or the property of being the referents). If it is taken as the limitor, then "He is at home" would generate the cognition of "The qualifier of the cognition of the speaker is at home". This interpretation would be similar to the previous interpretation "The object of the cognition of the speaker is at home". None of them can rule out the possibility of doubt about Rama's being at home when it is said, "Rama has come back home, and he is at home". In order to prevent this doubt if the word "he" is interpreted as "the person qualified by the property of being Rama, which is qualified by the property of being the qualifier of the cognition of the speaker", then the word "he" becomes homonymous, and it will have as many limitors as there are referents.

There is another alternative interpretation which is equally untenable. According to this interpretation, the limitor is the property of being the qualifier of the cognition of the speaker, but the referents are Rama qualified by the property of being Rama, Syama qualified by the property of being Syama, and so on. If we accept this view, then the property of being Rama which has been mentioned in the referent of "he" cannot be cognised as such. It requires a mode of presentation. Moreover, the referents of "Rama" and 'he" in the sentence "Rama has come back home, and he is at home" would not be the same. The referent of the former is Rama, while the referent of the latter is Rama qualified by the property of being Rama. Furthermore, the sentence "he is at home" is to be interpreted as "the qualifier of the cognition of the speaker is at home". Since these two sentences do not give rise to the same cognition, the previous doubt about the presence of Rama at home cannot be prevented.

[30] The function of an indicator is similar to that of a referential definite description of Donnellan and Kripke. It helps in picking out an object even if it is not a necessary property of the object or is not satisfied by the object. Hence definite descriptions such as "the murderer of Smith" or "the man over there with champagne in his glass" are considered indicator-expressions.

[31] According to this view also, there would be different referents of the word "he" and different limitors of the property of being the referent depending on the context of utterance and the speaker. The referent of "he" will be the person qualified by a property which is indicated by the property of being the qualifier of the cognition of the speaker, and the limitor will be the property which is indicated by the property the qualifier of the cognition of the speaker.

According to this view also, a demonstrative pronoun will be a homonymous expression and the problem of learning the meaning of it cannot be solved as it can be used to refer to any object and the mode of presentation of one object (limitor) will not be the same as the mode of presentation of another object.

[32] In this context "the property of being the referent of an expression" needs further explanation, since this property is the probandum (or the inferred entity) of an inference. Let us consider the word "Tom". The property of being the referent of "Tom" is the property of being the qualificand residing in the qualificand of the intention of the speaker, which takes the following form: Let Tom be the object of cognition generated by the word "Tom". In this intention Tom is the qualificand and the property of being the object of cognition generated by the word "Tom" is the qualifier. Since Tom is the qualificand, it has the property of being the qualificand. This property of being the qualificand is determined by the property of being the object of cognition generated by the word "Tom". Similarly, the property of being the referent of a demonstrative pronoun is the property of being the qualificand residing in the qualificand of the intention of the speaker, which takes the following form: Let such and such object be the object of the cognition generated by a demonstrative pronoun.

[33] In this context it is to be noted that Gadadhara has mentioned the property of being the object of cognition of the speaker and not the property of being the qualifier of the cognition of the speaker. In the cognition of the speaker of the sentence "Rama has come back home, and he is asleep", the person Rama as well as the limitor, viz., the property of being Rama, are the objects, but the latter is the qualifier in this cognition and the referent of "he" is Rama, not the property of being Rama. Since the property of being the referent of "he" resides in Rama which is the object of the cognition of the speaker and since the cognition of Rama is one of the causal conditions for the use of "he", Rama has both the property of being the object of cognition which is a causal condition for the use of "he" and the property of being the referent of "he". Hence "the object of cognition" means "the object of cognition of the speaker, which is a causal condition for the use of the word 'he'".

[34] According to the Nyaya, an inference necessarily involves three terms. One of them represents the inferred entity and is called the "probandum" (sadhya); the other term represents the locus of the inferred entity and is called the "subject" (paksa) of the

inference. In the inferential cognition the latter is the subject and the former is the predicate. Another term represents the mark or reason for the inferred entity and is called the "probans" (hetu) of the inference. On the basis of the cognition of the probans in the locus and the cognition of the pervasion relation of the probandum to the probans, we infer the probandum in the same locus.

In Gadadhara's example, Rama or Syama is the locus, the property of being the object of cognition of the speaker, which is a causal condition for the use of the demonstrative pronoun, is the probans, and the property of being the referent of the demonstrative pronoun is the probandum.

[35] In the context such as "(x) (If x is F, then x is G)", F is the pervaded and G is the pervader, and the relation of G to F is called "pervasion" (vyapti). The property of being the pervaded, (vyapyatva) signifies the property of being the first term of this pervasion relation, and "the property of being the pervader" (vyapakatva) signifies the property of being the second term of this pervasion relation.

[36] According to the Nyaya, in a qualificative cognition expressible by a sentence of the form "a is F" or "a is related to b", the objects of cognition such as a, b, and F are each presented under some mode. Hence the object of cognition referred to by the word "a pot" in the sentence "A pot is in the kitchen" is presented under some mode. For this reason it is called "a qualified object".

[37] Gadadhara's view emphasises the homonymous character of a demonstrative pronoun and the method of learning the referents of it. There are innumerable referents of a demonstrative pronoun and there are innumerable limitors of these referents. But this does not prevent us from knowing the referents of it. By means of a rule we come to know the property of being the referent of a demonstrative pronoun on a particular occasion of its use. This rule takes the form "If x is the object of the cognition of the speaker, which is a causal condition for the use of a demonstrative pronoun, then x is the referent of it". Moreover, this rule has been learnt from the observation of different uses of a demonstrative pronoun. But the meaning of a demonstrative pronoun has not been equated with this rule. According to the Nyaya, the meaning of an atomic expression is to be stated in terms of an ordered triple such that the first member is the referent(s) of it, the third member is the limitor of the property of being the referent, and the second member is a relation which relates the latter to the former.

[38] If the meaning of an atomic expression or a word is an ordered triple such that the first member is the referent, the third member is the limitor and the second member is the relation of the latter to the former, then the meaning of "I" would be the ordered triple such that the first member is the agent responsible for the utterance of "I", the third member is the property of being the agent responsible for the utterance of "I" and the second member is the relation of the latter to the former.

[39] Here by the sentence "I am very intelligent" the person is describing the cognition of the dumb or reticent person. In other words, what the speaker is saying is what a dumb or reticent person would speak of himself if he could express his cognition or thought.

[40] The Nyaya claims that in such cases the action signified by a verb such as "said" which has occurred in the sentence "The father said" has two objects such that one of them is the meaning of the sentence in which the word "you" has occurred and the other is the person addressed. In this example the son is the person addressed. Hence he is another object of the verb "said".

[41] Here the author is discussing both the referent and the limitor or the mode of presentation of the referent of the word "all". This discussion will also draw the distinction in meaning between "All S is P" and "Whatever is an S is P" or "If x is S, then x is P".

[42] Let us apply this definition of the property of being without remainder to the example "All substances are knowable". If we know this property, then we come to know the predicate knowability in the subject "substances" which are limited by substancehood. In other words, we come to know that a substance which is qualified by substancehood has the predicate knowability.

[43] This point can be explained in the following way. Let us consider F to be the limitor of the property of being the subject, G to be the property of being the collection, and H to be the predicate. What has been said here can be expressed in the following way: (x) (Fx c Gx) and (x) (Gx cHx), where "c" stands for "implies". The property of being without remainder has been explained in terms of the property G.

[44] In this context it is to be noted that the Nyaya analysis of a universal sentence such as "All men are mortal" is different from that of contemporary logic. In classical symbolic logic both "All men are mortal" and "Whoever is a man is mortal" are symbolised as (1) (x) (Hxc Mx), where "H" stands for humanity and "M" for mortality.

According to the Nyaya, "Whoever is a man is mortal" might be symbolised by (1), but not the sentence "All men are mortal". The latter involves a reference to a collection and thereby refers to the property of being the collection which is a particular number. Hence the sentence "All men are mortal" might be symbolised by (2) (x) (Hx c Gx) and (x) (Gx c Mx), where "H" stands for humanity, "G" for a particular number which is uniqe to the members of that collection, and "M" for mortality. Hence the meaning of "All men are mortal" cannot be identified with that of "Whoever is a man is mortal".

[45] According to the Nyaya, a number is both a property of the collection and a quality of the members of the collection. The same number is related to the collection by one relation, but is related to its members by another relation. If the members of a collection

are substances, then it is related to them by the relation of inherence, but is always related to the collection by a self-linking relation which is called "paryapti" in the technical language of the Nyaya.

[46] The Nyaya has drawn a distinction in meaning between "All substances are knowable" and "All substances have knowability", although they have the same truth-value. In the sentence "All substances are knowable", the subject is any substance and the predicate is a knowable object and the relation is one of identity. That is to say, the substances are to be identified with knowable objects, though not with all knowable objects. But in the sentence "All substances have knowability", any substance is the subject and knowability is the predicate, and the relation of the predicate to the subject is a self-linking (svarupa) relation. Hence the relations are not the same in these two sentences.

[47] This point can be explained in the following way: Let us consider F as substancehood, G as the property of being the collection which is a number and H as knowability. What the sentence "All substances have knowability" says can be expressed in the following way:

(a) (x) (Fx c Gx) and (x) (Gx c Hx).

Here F is the pervaded of G and G is the pervader of F. Similarly G is the pervaded of H and H is the pervader of G. Hence G is the pervader in relation to F and the pervaded in relation to H. Therefore, if we know that G is the pervader of F and the pervaded of H, then we come to cognise that H is present in the locus of F. In other words, since (b) (x) (Fx c Hx) follows from (a), the knowledge of (a) will yield the knowledge of (b).

[48] Properties such as the property of being the pervaded (vyapyatva) and the property of being the pervader (vyapakatva) are considered relational properties in the Nyaya system. In a sentence such as (x) (Fx c Gx), F is the pervaded property and G is the pervader property. Hence F has the property of being the pervaded and G has the property of being the pervader.

[49] If we do not apply the qualifier "the property of being the pervaded of the predicate" to the property of being the collection, then the sentence "All pots have blue colours" can be made true provided the property of being the collection is the pervader of potness and a pot has a blue colour. In other words, if (x) (Fx c Gx) is true and (Ex) (Fx.Bx) is true, then the sentence "All pots have blue colours" would be true, where F is potness, G is the property of being the collection, and B is a blue colour. But if we consider the property of being the collection as the pervaded of the predicate also, then this sentence would be false as there are pots (qualified by the property of being the collection) which do not have blue colours. In other words, the sentence "All pots have blue colours" would be false owing to the falsity of (x) (Gx c Bx).

[50] In others words, if we apply the qualifier "the property of being the pervaded of the predicate" to the property of being the collection, then we can demonstrate the falsity of the sentence "All pots have blue colours". Since we cannot claim that both (x) (Fx c Gx) and (x) (Gx c Bx) are true, the sentence "All pots have blue colours" would be false, where F stands for potness, G for the property of being the collection which resides in every pot, and B for a blue colour.

[51] Here also the sentence "All pots have blue colours" would be true if we do not apply the qualifier "the property of being the pervader of the limitor of the property of being the subject" to the property of being the collection. But the condition which would make this sentence true by virtue of this use of the word "all" would not be the same as the condition which would make the same sentence true by virtue of the previous use of the word "all". This sentence would be true because of the truth of (Ex) (Fx.Gx) and (x) (Gx c Bx). If the property of being the collection resides in blue pots only, then (x) (Gx c Bx) would be true. Since potness resides in any pot, (Ex) (Fx.Gx) would also be true. Hence the referent of "all" in this case would be the collection of blue pots only, but the referent of "all" in the previous case would be the collection of pots. Therefore, there are three cases depending on the nature of the property of being the collection.

(a) When the property of being the collection is both the pervader of the limitor of the property of being the subject and the pervaded of the predicate, the sentence such as "All pots are blue" would be false. Hence the symbolic counterpart of this sentence, namely: (x) (Fx c Gx) and (x) (Gx c Bx), is false.

(b) When the property of being the collection is only the pervader of the limitor of the property of being the subject the sentence "All pots are blue" would be true and its symbolic counterpart would be: (x) (Fx c Gx) and (Ex) (Fx.Bx).

(c) When the property of being the collection is only the pervaded of the predicate, the sentence "All pots are blue" would be true and it can be represented by the sentence, namely: (Ex) (Fx.Gx) and (x) (Gx c Bx).

In this context it is to be noted that the referent of "all" in both (a) and (b) would be the collection of pots, but in (c) it would be the collection of blue pots.

[52] Now the author is discussing the use of the word "all" which is the qualifier of a predicate. Here also the referent is a particular collection and the limitor of the property of being the referent is a particular number. This number resides in the collection as a whole by the relation of paryapti which is a type of self-linking (svarupa) relation, and it is also related to each of the members of this collection or class by the relation of inherence. This property of being the collection which is a particular number has two more qualifiers: (a) It is the pervader of the limitor of the property of being the predicate.

In other words, it resides in every predicate, where the term “predicate” refers to things, (b) It is also the pervaded of the relation of the subject to the predicate. In other words, wherever this property of being the collection is present, this relation of the subject to the predicate is also present.

In this context it is to be noted that, according to the Nyaya, in a sentence such as “S is P” both S and P would refer to entities and the word “is” signifies a relation. If the relation of P to S is R then the relation of S to P would be the converse of R; and R would reside in S and the converse of R would reside in P. But if a term of the sentence is empty or the relation does not hold, the sentence would be false.

[53] According to the Nyaya a property is something which resides somewhere. Hence it can be defined in the following way: P is a property Df (Ex) (x is a locus of P).

[54] According to the Nyaya the property of being the superstratum (adheyatva) and the property of being the substratum (adharatva), or the property of being the property (dharmatva) and the property of being the property-possessor (dharmitva) are correlative relational properties. As regards the ontological nature of these properties, there is some difference of opinion among the Nyaya philosophers. According to some Nyaya philosophers, they are to be considered self-linking (svarupa) relations. Hence the terms for such properties do not refer to separate ontological entities. But according to some other Nyaya philosophers, such as Raghunatha, these properties are separate ontological entities and hence they cannot be identified with something else.

[55] This point can be explained in the following way: Let us consider F as the property of being the property or the property of being the superstratum, G as the property of being the collection which is a number, and H as the relation of time to its predicate. The symbolic counterpart of the sentence “Time has all the properties” may be expressed in the following way:

(x) (Fx c Gx) and (x) (Gx c Hx).

Here also the Nyaya explains the use of the word “all” which qualifies a predicate in terms of three properties and the relation of pervader-pervaded among them.

[56] Here the author has indicated the following points which are important for a theory of meaning and transformation:

(a) The sentence “Time has all the properties” means “Temporal relation is present in all the properties”.

(b) The sentence “Time has all the properties” is transformationally related to the sentence “All properties are in time”.

(c) If we understand the meaning of one of the sentences mentioned in (b) and know the rules of transformation, then we can cognise the meaning of the other.

From the above remarks it would follow that a sentence such as "S is P" means the same as "S has the relation of P". In other words, when we say that a predicate is ascribed to a subject, what we mean is that the relation of the predicate to the subject holds good or the relation is present in the subject. Hence the sentence "S is P" is to be understood as "S R P" such that R characterises S. If P is related to S by R, then S is related to P by the converse of R. Hence P is characterised by the converse of R. Therefore, the sentence "Time has all the properties" or "Temporal relation is present in all the properties" is transformationally related to the sentence "All properties are in time". If "Time has all the properties" is symbolised as (i) (x) (Fx c Gx) and (x) (Gxd Hx), where H stands for the relation of the subject (i.e. time) to the predicate (i.e., the property), and "All properties are in time" is symbolised as (ii) (x) (Fx c Gx) and (x) (Gx c Tx)" where T stands for the relation of the predicate to the subject, then it follows that one is derivable from the other.

According to the Nyaya, the meaning of a sentence as distinct from the meanings of its terms lies in the relation between the referents of its terms. Moreover, since the relation is to be taken along with its direction, the relation signified by the sentence "Time has all the properties" is not the same as the relation signified by the sentence "All properties are in time", although they are related by the rules of transformation. Hence the meaning of one cannot be identified with that of the other.

[57] If we do not apply the qualifier "the property of being the pervaded of the relation of the subject to the predicate" to the property of being the collection, then the sentence "This moment of time has all the properties" can be made true by virtue of the truth of (x) (Fx c Gx) and (Ex) (Gx.Hx), where F stands for the limitor of the property of being the predicate, G for the property of being the collection which is a number, and H for the relation of this moment to a property which is in this moment.

[58] Here also it has been shown that if we do not apply the qualifier "the property of being the pervader of the limitor of the property of being the predicate" to the property of being the collection, then the sentence "This moment of time has all the properties" can be made true by virtue of the truth of (x) (Fx.Gx) and (x) (Gx c Hx). In this case the property of being the collection which is a number would characterise the properties which are present at this moment. Hence the properties which are characterised by this type of property of being the collection would be characterised by the relation of this moment to its predicate. Hence the referent of the word "all" in this case would be the collection of properties which are related to this moment, but in the previous cases the referent of "all" would be the collection of past, present and future properties. Therefore, here also there are three cases depending on the nature of the property of being the

collection.

(a) If the property of being the collection is both the pervader of the limitor of the property of being the predicate and the pervaded of the relation of the subject to its predicate, then the sentence “Time has all the properties” (or “Temporal relation characterises all the properties”) would be true, and the sentence “This moment of time has all the properties” would be false. This is due to the fact that: (x) (Fx c Gx) and (x) (Gx c Hx) is true.

(b) If the property of being the collection is only the pervader of the limitor of the property of being the predicate, then the sentence “This moment of time has all the properties” would be true owing to the fact that (x) (Fx c Gx) and (Ex) (Gx.Hx) are true. But the referent of the word “all” in both (a) and (b) .would be the same. That is to say, the referent would be the collection of past, present and future properties.

(c) If the property of being the collection is only the pervaded of the relation of the subject to its predicate, then also the sentence “This moment of time has all the properties” would be true. This is due to the fact that (Ex) (Fx.Gx) and (x) (Gx c Hx) are true. Here the referent of “all” would be the collection of present properties or the properties which are related to this moment.

[59] If the property F is less occurrent than G, then the class of objects corresponding to F will be a proper subset of the class of objects corresponding to G.

[60] Now the question is whether the word “what” refers to a property which is the pervaded of the limitor of the property of being the predicate, and which the speaker desires to know, or to a thing qualified by this property. A similar question has been asked in the case of other property- expressions such as “white”. In the case of the word “white” it is claimed that its primary referents are the particular white colours, while its secondary referents are the things qualified by the particular white colours. This distinction explains the difference between the meanings of the sentences “This object has a white colour” and “This object is white”. In the former sentence the word “white” refers to a white colour, while in the latter it refers to a white thing. Similarly, the primary referent of the word “what” in the sentence “What is this substance?” is the property which is the pervaded of the limitor of the property of being the predicate, and which the speaker wants to know while the secondary referent is the thing qualified by this property. This point has also been discussed by Pandit Madhusudana Nyayacharya in his commentary on Sabdasaktiprakasika, Vol.II. pp.13-14.

[61] In English we do not use an interrogative pronoun in such cases but Sanskrit uses the interrogative pronoun “kim” which is to be translated as “what”. Hence the sentence “What is it? Is it a cow or a buffalo?” would be the closest approximation to the Sanskrit sentence which expresses this doubt.

[62] In this context it is to be noted that according to the Nyaya a negative expression refers to an absence, and there are two types of negative expressions of the form (i) x is not in y, and (ii) x is not y. The former sentence asserts that y has the absence of x, and the latter asserts that x has difference from y. The absence signified by the former sentence is called "the relational absence" and the absence signified by the latter is called "the mutual absence" or "difference". In both the cases, what is negated is called "the counterpositive". In this context the author is talking about the difference which is the second type of negation or absence. Hence in (ii) y is the counterpositive of the absence, viz., difference from y. Since y is the counterpositive of this absence, it has the property of being the counterpositive. Hence something which does not have this difference will have the property of being the non-counterpositive of this difference.

[63] In this context it is to be noted that the word "one" may be used in different senses according to the Nyaya philosophers. When it is used in the sense of counting, one is a particular quality of an object. Since it is quality, it resides in its locus by the relation of inherence. But in the example "One person is eating at home", when several persons are eating, "one" is not used in the sense of counting. It refers to the thing (or person) qualified by the property of being the non-counterpositive of the difference which resides in the subject qualified by the predicate the property of being the agent of eating. Moreover, the property of being one resides in each object by the relation of paryapti which is a type of self-linking (svarupa) relation. This sense corresponds to the conception of unit class in set theory. In addition to the particular properties or qualities corresponding to different uses of the word "one", the Nyaya has admitted the class-character (jati) oneness (ekatvatva), which resides in particular qualities of being one. Hence the first sense corresponds to our counting of objects, the second sense is the same as our use of the word "only one", and the third sense corresponds to our use of "unit set". But the word "ekatvatva" (oneness) refers to a universal.

[64] The "difference" mentioned here is the "difference from a". In this difference a is the counterpositive (or negatum). Since a is identical with itself, a does not have a difference from a. Hence it is the non-counterpositive of this difference. In other words, it has the property of being the non- counterpositive of this difference.

[65] Here the author is describing the nature of the predicate and the property of being one. A predicate, such as F, fulfills the following conditions if it is a predicate of the subject, say a: (i) F is related to a by some relation, and (ii) F is a qualifier of a. Hence it follows that unless both the conditions are fulfilled F cannot be considered as a predicate of a. Now the description of the property of being one which resides in F is given in terms of a difference. Since F is different from all other things such as a, b, G, H, etc., it has the difference from a, difference from G etc. If it has the difference from a then a is the counterpositive of this difference. Now we have to consider the predicates which are related to the subject a in the way a particular F is related to a. If there are several F's

such as F1, F2, etc., then each of them is a predicate of a. Now let us consider F1. It has the difference from F2. Similarly, F2 has difference from F1. Hence neither of them is a non-counterpositive of the difference from the predicate. But if there is only F1, then it will be the non-counterpositive of the difference from the predicate. Hence the property of being one is the property of being the non-counterpositive of this type of difference.

[66] The author has used the term "akasa" which has been translated as "sky" or "ether". Since "akasa" is a ubiquitous object and the locus of sound, neither the word "sky" nor the word "ether" seems to be a correct translation of the technical term "akasa". However, for the sake of convenience I have followed the standard translation.

[67] Here the author has used the terms "dharma" and "adharma" in the sense of "virtue" and "vice".

[68] According to the Nyaya metaphysics happiness and misery are qualities of the soul. Since they are occurrent phenomena, there must be some cause of these mental phenomena or feelings.

[69] The author has used the word "aptavakya" which means a sentence which describes a valid cognition or which is due to a valid cognition.

[70] "Gagana" is another word for "sky".

[71] According to the Nyaya philosophy of language a descriptive expression, definite or indefinite, is treated as a sentence. A sentence is a set of morphemes which are related to each other by syntactical rules.

[72] Here by "imaginary word" we mean a name, say a, which refers to the hare's horn, and this name may be introduced in the sentence of "The referent of a is the hare's horn".

[73] What is claimed here is that the hare's horn cannot be inferred on the basis of any evidence or valid cognition. Since an inferential knowledge requires knowledge of pervasion, the hare's horn cannot be inferred with a relevant knowledge of pervasion which will take the form "If there is such and such, then there is the hare's horn".

[74] It is to be noted that the Nyaya philosophers have accepted four sources of valid cognition, viz., perception, inference, analogy, and testimony. Since the cognition of the hare's horn cannot be established by any of these sources, it cannot be considered as a valid cognition or knowledge.

[75] In order to explain the non-occurrence of the cognition from the expression "The hare's horn" the author uses the preventer-prevented relation which holds among certain

cognitions. This relation is the epistemic counterpart of the contrary or contradictory relation between sentences. For example, the cognition corresponding to the sentence "John is bald" prevents the occurrence of the cognition corresponding to the sentence "John is not bald" within the same consciousness at the same time. For more on this point, see S. Bhattacharya, "Some Principles and Concepts of Navya- Nyaya Logic and Ontology"' Our Heritage, 1976.

[76] Let us consider a sentence such as "a is F" or "aRb". If we have a definite (doubt free) cognition of a is not F or a is not related to b by the relation R, then the sentence "a is F" or "aRb" fails to generate a corresponding cognition. In other words, if a person has a definite (doubt free) cognition of "a is not F" then this cognition prevents the occurrence of the cognition of a is F. This follows from the preventer-prevented relation between cognitions which is analogous to contrary or contradictory relation between propositions or sentences.

[77] In this context it is to be noted that the Nyaya does not admit an unreal object even at the epistemic level. In other words, there is no imaginary hare's horn. Hence what is considered as an idea of a hare's horn is not an entity according to the Nyaya philosophers. They have not postulated any unreal entity at any level, either epistemic or ontological.

[78] This point may be explained in the following way. Let us consider "aRb" as the form of any cognition. In this cognition a is the qualificand, b is the qualifier and the relation of b to a is the qualification relation which is sometimes called "the relation between the qualificand and the qualifier". The qualified object would be a qualified by b in the relation R. In other words, what we call "a fact" corresponding to "aRb" would be a qualified object. Since, according to the Nyaya, although R is real elsewhere, it here fails to relate b to a. Hence there cannot be any fact aRb. From this one should not conclude that, according to the Nyaya, there is an unreal R at the epistemic level. The Nyaya claims that the R which is cognised is real elsewhere or elsewhen. That is to say, some other real relation is cognised in an erroneous cognition.

[79] Here the author discusses whether a sentence as a whole refers to a fact. According to the Nyaya view it does not refer to any fact. But from this one should not conclude that according to the Nyaya the meaning of a sentence is just a function of the meanings of the words which have occurred in it.

[80] In other words, if the use or the uses of a sentence are not known, then the cognition of the property of being the referent of the words would be necessary for understanding the meaning of it.

[81] In this context the author is giving a causal account of our voluntary action. According to the Nyaya an overt (physical) voluntary movement presupposes certain

mental events. Prior to any voluntary action towards x, there is a cognition (jnana) of x and the cognition that x is a desired goal (istasadhanata jnana). Then there is a desire (iccha) for x, and subsequently there is a conscious effort (krti) for x, which is a mental event. After these mental states there is an endeavour or act of trying (cesta) for x, which is a bodily action involving physical movements.

[82] Here the expression "understanding the meaning of a sentence" means "an understanding or cognition which is due to the understanding or cognition of the words which have occurred in it".